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# PHOTO-ERA

The American Journal of Photography

AN ILLUSTRATED MONTHLY

OF

## PHOTOGRAPHY AND ALLIED ARTS

Volume XXIV

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THE "SWING"  
— VERSACE —



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## The Sixth American Photographic Salon

GEORGE W. STEVENS

TOGETHER with a score of other elements entering into the making of a picture, there is one peculiar quality in much good painting, readily discoverable, but difficult to describe: a quality of texture, not of fabric or material, but of pigment — which ceases then to be pigment. Here you find it in the end wall of a little cottage by Jacob Maris; Whistler's canvases are sweet with it; now again observe it in the low-keyed gray-white collars of Frans Hals's sitters. Breitner, the Hollander, suffuses his compositions with it; Ben Foster finds it at times; J. Francis Murphy, always; and so do many masters past and present — many other masters have never found it, great though they may have been.

This texture, as elusive of description as the perfume of a flower — for who shall say the rose smells thus, the violet so — this texture, I repeat, is often found in good oils; sometimes, but rarely, in water-colors; and very, very often in the work of the photographer, when he is an artist. I doubt that the camera alone could find it, for it is a subtle something captured by a brain and set down by a master hand. When a picture possesses it one knows it to be a real picture, at a glance, whether it is seen upside down or sideways or through even the tail of the eye. This subtle texture can be felt and enjoyed in any position — it will even save a poor composition, which is saying a good deal. It is a quality in painting seldom observed

or enjoyed by the layman, the pretender or the untrained average eye. The visitors in galleries looking for literary amusements, religious uplifts and the like in pictures see it not; but once it is recognized, for that fortunate has been opened wide another portal of the realm of beauty.

Why do I dwell upon this quality of texture? Because so seldom found even in good painting, it is more and more each day finding its way into the work of the master photographers — I do not like to say photographer; when a man's work reaches a certain excellence he ceases to be a photographer. One might as well call Charles Dana Gibson a pen-and-inker, or Whistler a copper-plater or Millet an oil-tuber; for it matters not where or how you get your picture, if you really get it. Great art is all one, whether it is splashed on with a brush, laid on with a palette-knife, daubed on with a rag, rubbed on with a thumb, washed out with a sponge or thrown on with a lens. Mediums or tools will produce art not one whit more than a set of ivory keys and a book of notes and bars will create music. It all lies in the brain that conceives and directs, understanding beauty of line, harmony, balance, rhythm, values, tone and composition.

The Sixth American Salon will make the Society of Western Artists, the American Water-Color Society, the New York Water Club, the Chicago Water-Color and others of their ilk sit up, stop, look,



THE DANCER

C. YARNALL ABBOTT

SIXTH  
AMERICAN  
PHOTOGRAPHIC  
SALON

listen and whistle. To me it is far more interesting and really a greater contribution to art than the annual exhibition effort of the Royal Academy of England, which sounds like saying a good deal but really is not much; for this august assemblage of painters has of late given us a sickly rehash of "Milkmaids at the Bars," "The Parting Kiss," "The Village Wedding," "The Homecoming," "The Outgoing," "A Jolly Well-told Story" and sickly Paris green landscapes. Our American painters, too, must look to their laurels, particularly the workers in water-color,

in view of the grand onward march and great achievement of the man with the camera. Our water-color shows of late have been filled in far too great part with threadbare, conventional productions. The old thing done once again, painful and familiar green contraptions and ancient time-worn rule-of-thumb compositions. On the other hand, glance at our photographic exhibits of recent years for relief. Take a run through the Sixth American Salon, for instance, for a breath of exhilarating ozone, and you will observe a fertility of imagination, invention

SIXTH  
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UNDER THE STUDIO-LIGHT

HORACE E. STOUT

and creation both gratifying and inspiring.

Nature is not always good art, any more than all animals are good eating, or all fruits healthful or all people attractive. Portions of nature, even, which are pleasing to the senses are not always worthy subjects for the brush or lens. Art is something other than a map or record of pleasing things. A spectacular sunset may be inspiring, but a far better subject might be found in the tender gradation of values of some homely living-room, too subtle for the layman to even suspect their presence. So it is that the painter who paints all he sees, or the photographer who accepts all his camera can grasp,

seldom produces good art. We cannot reproduce nature, but we can create something quite as complete in its own way. A completed and artistic print is a creation in itself, and the laws governing its beauty are as fixed and as absolute as the laws that swing the planets without friction.

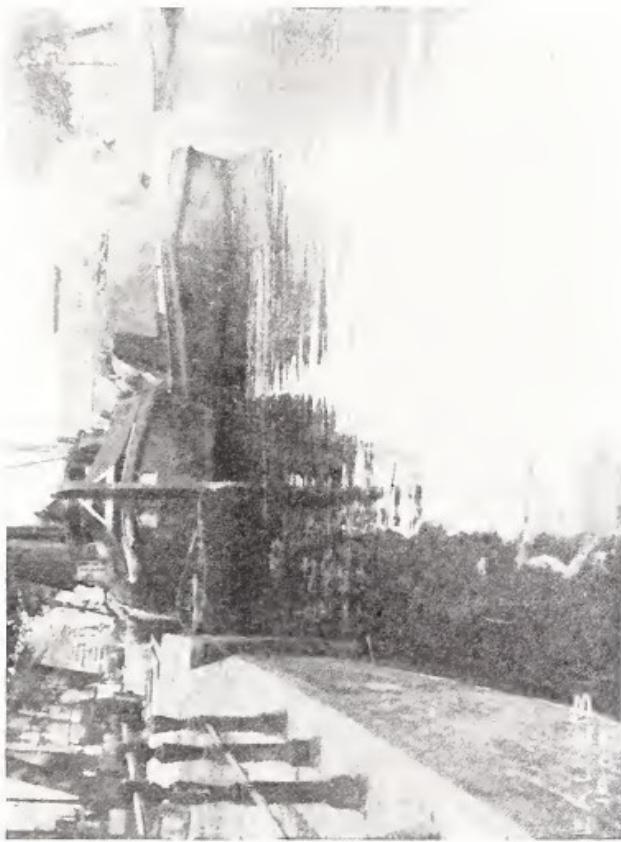
At times, no doubt, a particularly good print is an accident; but when we look at the work of F. J. Bruguère, Paul Lewis Anderson, Walter Zimmerman, John Chislett, C. Yarnall Abbott, F. Austin Lidbury, W. H. Porterfield, Edward B. Sides, Horace E. Stout, F. L. Wright, Fedora E. D. Brown and a score or two

of other Americans in the Sixth Salon, we feel that here no accident or chance fortune has combined to produce their prints. The "Landscape," by Bruguïère, contains all that the master Corot would have filched from nature. It is a tender passage beautifully arranged with all the deftness and delicacy of a master. The six prints of Paul Lewis Anderson are marvelous, not only for their arrangement, which would make them interesting though they possessed no other merit, but because of a remarkably vibrant luminous quality — a quality almost analogous with that given to the world by the impressionists of France. Some of his compositions, particularly his "Mist on the Hudson," would suffice as a vehicle for Monet. The luminarists, themselves, could ask for no more luminosity than is found in his "Summer Sunlight." That the camerist has been able to create this vibrant quality without the use of color is, in itself, a marvelous accomplishment. "The Dancer" by C. Yarnall Abbott, would make Sargent's portrait of Carnegie look like a clothing-store dummy, and yet some painters look down upon the productions of the camera, or blindly do not look at all. While Abbott has used his medium perfectly, this composition does not depend upon a medium for its excellence. The arrangement is masterful, quite the perfection of mastery. It hardly matters whether we look upon the dancer as a dancer at all — merely as an arrangement of spaces it is beautiful. The little white spot under the hand, or the glint of a bangle, is, in itself, like Katishaw's elbow, worth going many miles to see. The Japanese have given us something like it, but nothing more pleasing. Whistler, I know, would have paused before it appreciatively. Mr. Abbott's "In the Studio" is quite as interesting. Another commanding figure-study is Horace E. Stout's "Under the Studio-Light," a beautiful arrangement, subtle in feeling, tender in value and, above all, original in

conception. When considering the figure-work, "The Closed Door," by W. and G. Parrish, cannot be ignored. It is beautiful as an arrangement in white; surprising in its dramatic force when one analyzes the filmy delicacy of its elements. W. H. Porterfield, in his "Lowlands of Jersey," has interpreted a bit of landscape with a power like unto Hobbema in "The Avenue." Here, again, there is no accident, but a sure knowledge of the power of composition, the laws of balance and the subtleties of value.

Almost every print in the present Salon could be taken for the text of a sermon. I started out to set down only a general impression. Unconsciously I have commenced particularizing. I am compelled to stop short, for every exhibitor has something worthy of serious mention. The Salon as a whole is most gratifying. Fresh eyes have grasped new beauties — new truths are here revealed in score upon score of tender, surprising, mysterious, poetic, serious, uplifting and masterful prints. I hardly know whether or not the world of art — painters and connoisseurs — realize that these new and great masters are among us. I am afraid that the world is not yet fully awake — it is a sleepy old world at times, the bulk of it lagging along a generation or so behind: the musicians decrying Wagner, the juries blind to Whistler, the painters to Millet, the docile, well-fed plain people kow-towing to rubbish most of the time. Yes, it is a fogyish old world; but when it does finally awaken — alas, often when the master sleeps — it is lavish enough in its appreciation and praise. And so the master of the lens will come, is coming, into his own. Painters all, look to your laurels. Forget mediums and go to this new master for an inspiration. The Sixth Salon will give any painter, any layman, the thrill of a new sensation. It is fresh, virile, invigorating, commanding and a potent factor in the art-development of the people, the country and the times.





THE CANAL.

SIXTH AMERICAN PHOTOGRAPHIC SALON

E. A. LOEB

# The Autochrome Plate in Its Relation to the Color-Theory of Young and Helmholtz

FRED D. MAISCH

(Concluded)

**S**O much for obtaining correct rendering of color. Reverting now to the theory, we find in a "Text-book of Color," by Ogden N. Rood, published in 1890, the following:

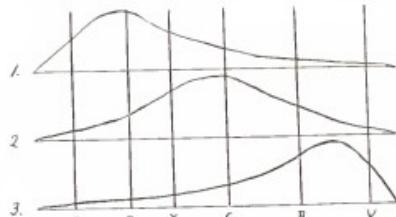
"According to Thomas Young, each minute elementary portion of the retina is capable of receiving and transmitting three different sensations, or we may say that each elementary portion of its surface is supplied with three nerve-fibrils, adapted to the reception of three sensations. One set of these nerves is strongly acted upon by long waves of light and produces the sensation we call red; another set responds most powerfully to waves of medium length, producing the sensation we call green, and finally, the third set is strongly stimulated by short waves, and generates the sensation known as violet.

"Nerves of the first kind are powerfully stimulated by red light, are much less affected by yellow, still less by green, and very little by violet light. Nerves of the second kind are much affected by green light, less by yellow and blue, and still less by red and violet.

"The third kind of nerves answers readily to violet light, and is successively less affected by other kinds of light in the following order; blue, green, yellow, orange, red. The next point in the theory is that, if all three sets of nerves are simultaneously stimulated to about the same degree, the sensation which we call white will be produced. These are the main points of Young's theory, published as long ago as 1802 and, more fully, in 1807."

Let us compare a camera containing an Autochrome plate with the eyes, as described by Thomas Young. The three sets of dyed grains in the plate correspond exactly to the three sets of nerves in the retina. For the longest waves of light and

nerves of the first kind we have the red-orange grains; for nerves and light of the second kind, the green grains, and blue-violet grains for the third set. The blue-violet grains transmit the most actinic light and are, therefore, the least in number; while the red-orange grains transmit the least actinic light, and are, therefore, present in by far the greatest proportion of the three sets.



CURVES SHOWING THE ACTION OF DIFFERENT COLORS OF THE SPECTRUM ON THE THREE SETS OF NERVE FIBRILS (HELMHOLTZ)

Examined under the microscope the three sets of starch-grains are shown to be thoroughly mixed, and, although similar kinds do collect and form islands, the spaces occupied by them are too small to be discernible with the naked eye.

The nerves of the retina, as we have seen, convey to the brain the suggestion or sensation of color on account of the longer or shorter wave-lengths of light by which they are affected or stimulated. The starch-grains divide and transmit light in precisely the same manner. Blue-violet rays naturally pass most readily through the grains having the same color, and impress or affect the photographic emulsion in the same proportion as such rays happen to be reflected by the object photographed. The green and red-orange grains, of course, are penetrated by the rays which produce these sensations in the eye.

Ordinary development of an exposed dry-plate will, as every one knows, produce a negative, and this negative will show the greatest opacity in the parts where the action of light has been the strongest, which parts are identical with the highest lights on the subject photographed. The greatest transparency will represent the darkest part of the subject. In like manner the Autochrome *negative* will be opaque or black where white light has acted and white in the black parts of the subject photographed. But only in the case of these two extremes will the appearance of the two plates be identical. As soon as the slightest tinge of color enters into our subject the results are remarkably different. The ordinary plate shows merely gradations from black to white, according to the actinic power of the light reflected from or by the various parts of the object. Blue, as is well known, will affect the silver salt almost as much as white, while the action of red is very feeble. By dividing light into the three parts which correspond to the three sets of nerves, as the Lumière's have succeeded in doing, we will find that blue rays show the greatest energy behind the blue-violet grains, less behind the green and little, or none at all behind the red-orange grains. With correct exposure the blue rays will pass only through such grains and in such proportions as are necessary to make up the particular tint of these rays. The negative must, therefore, show the complement necessary to give the white impression, which is a yellow. Red rays will show the same action in inverse ratio, and the negative must show its complement — a green-blue. Examining the fixed-out negative by transmitted light, we can see only the color-grains which absorbed or intercepted, either wholly or partly, the action of the rays in the camera. The complement of blue being yellow, and the negative showing yellow, it follows that a certain red and a certain green acting together must also show yellow. This can readily be proven by examining an Autochrome negative of our flag, because it shows black stars on a yellow ground, and green and black stripes.

The second stage of the process is the changing of the negative into a positive which will show the original colors. This is accomplished in an acidified solution of potassium permanganate, which dissolves the silver reduced or oxidized in the first developer. The silver remaining in the plate is then submitted to the joint action of light and developer until sufficient density or correct brilliancy of color is obtained. The plate is then fixed out in the usual manner. If the object reflected any rays of exactly the same color as the starch-grains they will pass through these grains without hindrance and the developer will effect a complete reduction of the silver salt lying behind these certain grains. In the ordinary plate this would mean opacity of these points or areas; while in the Autochrome it means not only this, but also the complete covering or obliteration of these grains. Wherever this action has been complete the potassium permanganate bath will remove every particle of silver in these areas, and in place of opacity we will have transparency. If the original rays are of a composite color they will pass partly through one set of grains and partly through another, effecting a partial reduction of the silver behind both, and the permanganate bath will act in exactly the same proportion. After the reversal of the negative has been accomplished, and the positive produced, we can see those grain color-units which were penetrated by light during the exposure in the camera. It is this perfect and complete action of the permanganate bath which makes correct exposure an absolute necessity toward obtaining true colors. In case of an over-exposure the permanganate will uncover too many of the color-units, the result of which is pale colors; under-exposure will permit only partial action of the permanganate, resulting in dull colors or insufficient transparency.

A chart of one hundred national flags will serve as an illustration of the ability of the plate to reproduce colors and show their complements. The chart shows several shades of red, yellow, green and blue; the negative shows complements of these



SUMMER SUNLIGHT

PAUL LEWIS ANDERSON  
SIXTH AMERICAN PHOTOGRAPHIC SALON

SIXTH  
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SALON



THE GUITAR

BARON A. DE MEYER

colors in the following order: greens, blues, reds and yellows. Before describing in detail some of the principal flags, it may be of interest to note a curious fact. Speaking broadly, blue, the most actinic color, finds its complement in yellow, the most vivid color of the spectrum; and red, the least actinic, finds its complement in the most restful, green.

The chart under consideration shows the British Red Ensign, French Ensign and our own Stars and Stripes. The red on all of these is equal in tint and true to B of a well-printed, normal spectrum. Ac-

cording to Helmholtz, the complement is a bluish green. The negative proves this to be correct, as it shows in these spaces a brilliant viridian green. The safest light to use in the dark-room, while developing an Autochrome plate, is a viridian green furnished by the Lumière Company, only of far less luminosity than the color shown to be complementary to red. Red, as is well known, is the "safe" light in which to develop an ordinary plate.

The Turkish Imperial Standard shows a carmine field, which is a slightly purplish red. The negative shows an almost

emerald green, while laboratory tests have proven red-purple and emerald green to be complementary.

The Italian Ensign presents a dull green stripe equal to quarter-way between E and F of the normal spectrum print, only darker. Laboratory tests have proven green and purple to be complementary, and if the luminosity of the green is diminished, that of the purple must be increased. In dealing with pigments the luminosity of the green would be diminished by mixing with lamp-black; that of the purple would be increased by mixing with white. The negative shows a whitish purple as the complement of the green.

The British Blue Ensign, French Merchant and our own blue field are on this chart equal to about half way between F and G, showing more nearly an Antwerp blue than an ultramarine. The negative shows an orange-tinted yellow, while the complement of pure ultramarine is pure yellow.

The Argentine Merchant flag has medium cerulean blue stripes; the negative shows medium burnt umber. A darker tint of this blue would have produced an orange color in the negative, but as it is mixed with white, the negative must necessarily show a darker tone. In laboratory tests it has been found that by decreasing the luminosity of pure orange the result is brown.

The Spanish Merchant flag has chrome yellow stripes, for which the negative shows a deep French blue (a violet blue) more saturated than the spectrum shows at a point slightly more than half way between F and G.

This method of determining, at least, the complements of pigments is much easier than the use of Maxwell's disks, and much less laborious, since any number of colors can be photographed in groups. It seems particularly well adapted to class demonstration, and as such would prove very entertaining and instructive.



TITIANA

ROBERT DEMACHY

SIXTH AMERICAN PHOTOGRAPHIC SALON

# The Projection of Opaque Objects

C. H. CLAUDY

"**G**IVE a novel entertainment at home and make big money! Postal-cards, photographs and colored views, thrown on a screen, greatly enlarged without lantern-slides, in all the beauty of natural tints. Cheapest and most efficient machine on the market. Price, \$2.99, or Free with five pounds of Skinnums's Baking-Powder!"

It is this sort of advertisement and the kind of apparatus it depicts which makes the general public lose faith in opaque projectors! While there is no denying the difficulty of making these devices successful, or the fact that the earlier models were woefully inefficient, the modern affairs utilize all the light possible, instead of about one tenth that amount. Some models project eight- and ten-foot circles forty feet with fair success; but they don't come at \$2.99!

Not one man in ten understands the underlying principles of opaque projection, although nine out of ten think they do. But the average amateur photographer's explanation of an opaque projector goes no further than this: opaque projection is ordinary photographic camera-projection reversed. In making a picture of a landscape, a brightly-illuminated scene reflects light from the sun, which enters a lens, and is focused upon a screen, the plate or film forming an exact but greatly reduced image of the landscape. In the opaque projector the greatly reduced image is the postal-card, or other "copy," which is brightly illuminated by artificial light, and the "landscape" is a screen in a darkened room, upon which the lens projects and focuses the light reflected from the postal-card.

Now this is all very true as far as it goes. But let us examine a little further. For the sake of argument and an exact parallel let us imagine a landscape ten feet square and ten feet distant from a lens which will produce a negative of it one foot square. The landscape, of course, is

illuminated by sunlight. Each and every point in this landscape is reflecting this sunlight in all directions. Each and every point in the landscape reflects some rays of light into the lens of the camera, which form the image on the screen. As the size of the image is one one-hundredth that of the landscape, it follows that said image is one hundred times as brightly illuminated, to the eye, as the landscape, admitting for the sake of argument that the f. value of the lens used and the f. value of the lenses of the eyes are the same when looking at both ground-glass and scene.

Now reverse this idea, and consider that we have a piece of copy one foot square, which is to be projected upon a ten-foot screen. By the same argument, the image on the screen is going to be one hundred times *less* bright than the illuminated copy.

"But," you say, not thinking, "this also applies to *lantern-slides* — the images projected from them must also be as much less bright than the illuminated slide as the images projected from them are larger than the originals."

Very true. But — and here is the crux of the matter — lantern-slides are illuminated with *direct* light, a lot of which is gathered from the artificial source by condensors, squeezed into a cone and thrown through the slide and into the projection-lens. Roughly speaking, ten per cent of the *total* light emitted in all directions from a ninety-degree arc reaches the condensors and is transmitted to the screen, with only the loss due to absorption and reflection from lens-surfaces. But if this ten per cent is thrown upon a card which, in turn, is to reflect it to a lens for opaque projection not one per cent of the reflected light, which, of course, is throughout a hemisphere of 180 degrees, reaches the projection-lens.

The problem of constructing a practical opaque projector, therefore, resolves itself into the provision of the most in-

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HOMEWARD BOUND

F. L. WRIGHT

tense possible light, the greatest amount of this light thrown upon the card, and the largest possible f. value to the projection-lens.

The most intense artificial light practically possible is an electric arc of high amperage. The greatest amount which can be thrown upon a reflecting-surface big enough for projection-purposes is sent there with condensors so arranged as to provide a parallel beam of light. The greatest f. value projection-lens is to be found either in portrait-lenses, very high-

grade modern anastigmats, or some of the older types of fast lenses without anastigmatic corrections. So much greater is the importance of brilliancy over definition in this work that even the foreign manufacturers, usually sticklers for all that is scientifically correct, are putting out lenses on opaque projection apparatus which are anything but truly corrected, but which have a high f. value (great illuminating-power).

To any one with a mind in his head it is obvious that these various factors —

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LANDSCAPE

F. J. BRUGUIÈRE

intense light, carefully-ground condensors, and fine projection-lens — cannot be purchased for \$2.99, or given away free. Nor can they be purchased for ten or fifteen dollars. There is a vast number of what is called "postal-card projectors" being sold to-day, doubtless giving children a great deal of pleasure, but about as stimulating to modern projector trade for serious work as the earliest Kodak, marketed now for the first time, would be to those who know the modern Kodak line.

These cheap instruments make no attempt to use the condensor or the fast projection-lens. Two electric *bulbs*, not *arcs*, on each side of the copy, or two Welsbach mantles, tin reflectors, a place to put the card and a cheap piece of curved glass in

front make up the outfit. Without condensors, nothing like one per cent of the light used gets to the picture without first being reflected from the tin; and of the light which does reach the card, not one per cent reaches the lens of small f. value (small because cheap), the rest being reflected at various angles within the instrument. Then, with an enlargement of ten diameters — which makes a postal-card appear on the screen a little over four feet long — the available one per cent of one per cent of light (one per cent is much too conservative an estimate, by the way) is further reduced by being spread over an area of screen one hundred times greater than the surface of the card which reflects it. When you think that this screen is



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THE CLOSED DOOR W. AND G. PARRISH

reflecting light in all directions, and that but a tiny fraction of one per cent of this reflected light can be gathered up by any one pair of eyes (see diagrams), you can realize what an infinitesimal amount of the original light of the lamps ever gets to the visual organs of the spectator, and why it is that these so-called cheap projectors are so woefully inefficient.

Attempts to make these cheaper forms of apparatus do any serious work are bound to result in failure. Only the finest optical and light equipment will produce even fair results. But, although such equipments cost a good deal of money — the cheapest practical apparatus listing about seventy dollars — there is no rea-

son why any one who possesses a good electric lantern cannot adapt it to opaque work for himself. If one has no arc-light available it is better to purchase the inexpensive apparatus and be satisfied with a small and poorly-illuminated circle than to go to the trouble and expense of constructing what will be, at best, without a powerful light-source, but a makeshift.

Given a projection-lantern, however, with arc and condensors and the opportunity to equip your opaque-projector-to-be with a projection-lens of great speed — a Darlot portrait-lens, for instance — any clever hand with tools should be able to make an angular box with a trap-door for the copy and fit it to the bed of his lantern.



JOHN CHISLETT  
WINTER ON A WINDING STREAM  
SIXTH AMERICAN PHOTOGRAPHIC SALON

It is necessary that the second element of the condensor, or the one further from the source of light, be removed in opaque projection, so that the beam of light formed consists practically of parallel rays. It is also necessary to provide a mirror set at an angle upon the edge of the projection-lens if anything written or printed is to be projected; because while top and bottom can be inverted in placing the copy, right and left cannot, as in the case of the lantern-slide. It therefore requires a second reversal (accomplished by reflection) to bring the copy-image to the screen in natural position. In pictures or diagrams this reversal of right and left does not much matter; but with anything written or printed it is necessary to reverse it or the print will read from right to left upon the screen.

In the construction of an opaque attachment for a lantern there is one very vital point which should be most carefully considered. The copy, of course, must be parallel to the plane of the diaphragm of the projection-lens. The angle which the copy forms with the parallel beam of light must be as small as it is possible to make it; in other words, the projection-lens should be as nearly parallel with the line of the condensors as is physically possible. Failure to provide for this will result in two things: the maximum per cent of the light from the condensors will not be used and a direct reflection of pure light-rays may take place from glossy copy, forming upon the screen an image not of the picture on the card, but of the light from the condensor. The same effect is seen when reading a magazine printed on glazed paper: if the page forms a true reflecting-angle with the light you do not see the print, but just a glare on the paper. It seems paradoxical that your efforts should be to get some other than a true reflecting-angle between light, copy and projection-lens, yet if you will consider a moment you will see why this is so. A picture on a glossy card has, optically, two—not one—surfaces. There is the surface of pigment forming the picture, which reflects various colors to your eye or the lens, and there is the gloss of the

surface, which reflects all the colors which come to it from the source of light. What you want is to have only the first reflection reach the projection-lens; the second is detrimental.

It would be idle to give specific directions for the manufacture of an opaque attachment, since each lantern must be a law unto itself. The distance from the projection-lens to the plane of the copy, of course, must be the focal length of the lens, with a provision for focusing outward. The distance from condensor to center of copy should be approximately the same as the focal length of the lens, although, as the rays from the condensor are parallel, this is not essential. The rheostat should be capable of giving at least twenty-five amperes if a truly bright picture is expected; and because such light is accompanied with much heat, the box should be metal as far as the copy, anyway, and asbestos-lined wood from copy to projection-lens. A water or alum cell, introduced between condensor and copy, to remove heat is part of the equipment of a good opaque projector. It is important that the copy lie flat, since depth of definition is small with any lens with great f. value. To secure this make the opening to hold the picture to be projected smaller than the copy, forming a diaphragm which will hold it on all sides, and then have either a spring-actuated or other pressure-device upon the flap or door which holds the copy in place.

There is no question of the utility of the opaque projector in the lecture-hall, the home, school, lodge, church or scientific institute. Lectures can be arranged at a moment's notice. Postal-card views from all over the world are available everywhere. Illustrations from books, printed pages, diagrams, sketches, can be shown with no preparation or making of slides. In some elaborate forms of the apparatus physical experiments can be shown—the workings of small machinery, such as a watch; the effect of a magnet on iron filings; of vibrations upon a sand-plate, etc., etc. Opaque projection is not usurping the place of the projecting-lantern, nor can it do so. It has a distinct niche of its own.

In this respect the words of William H. Clarke, the organ expert, who experimented for years to produce a satisfactory opaque projector because colored lantern-slides were so costly and at times so poor, are interesting:

"The practical result of my many years of optical study of this subject may thus be summed up:

"The introduction of cheap dry-plate lantern-slides has reduced their cost to a minimum for the purchaser. In the continuation of my studies I experimented with transparent colors until I obtained a simple method of tinting these slides with hardly any expense, which any owner of lantern-slides can easily do with success. Any landscape or picture may thus be photographed into the size of the regular sized lantern-slide as a transparency which may be colored according to nature.

"This discovery of so simple a process of coloring pictures was a recompense for all the years spent in investigating the possibilities and impossibilities of the reflecting-camera [Mr. Clarke's name for opaque projector.—C. H. C.], because with the stereopticon, and with the same comparative degree of illumination, the effect is a hundred-fold more powerful than can be possible with the reflection of opaque pictures or objects, and the transparent colors are projected with proportionate power. This causes the modern stereopticon to be of more practical value for exhibitions for the masses of the public where there must be sufficient intensity to hold the attention."

It is further illuminating to this subject of lantern-slides vs. opaque projection to learn that when a combination-lantern is manufactured, which can change from opaque to transparent projectors, and *vice versa*, so that the lecturer can show first a postal-card, then a slide, then a book, then another slide, etc., a *dark screen of glass is provided to dim the projection of the lantern-slides so that the spectator shall not be affronted with too sudden changes in the relative brilliancy of the alternate opaque-and transparent-projected pictures!*

Opaque projection is not new. Mr. Clarke says that Professor Pepper used

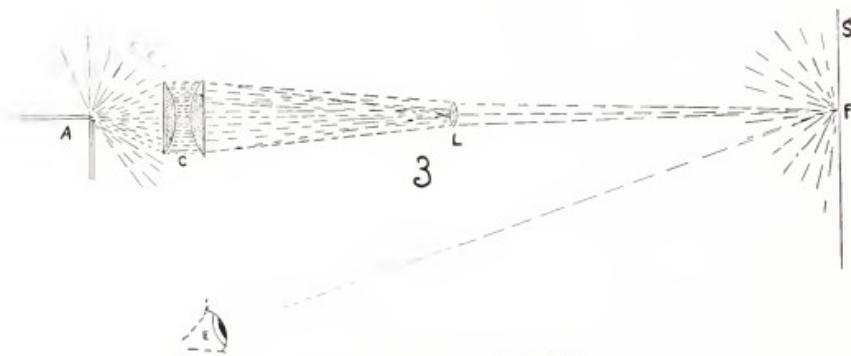
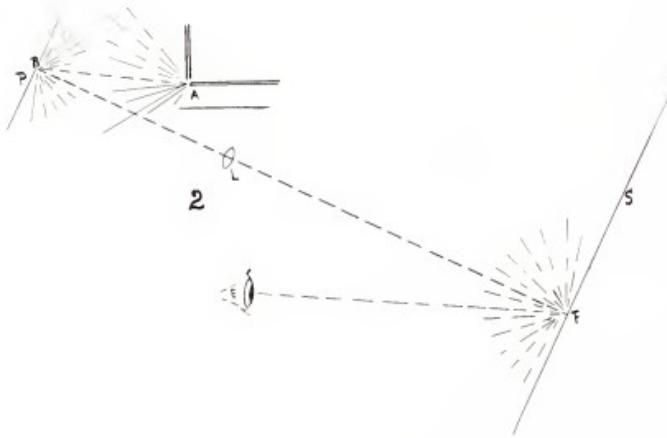
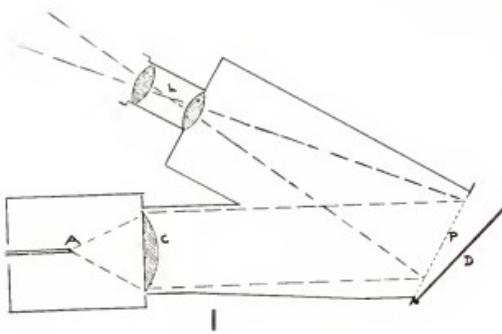
such an optical equipment in lectures in London in 1857, and that an American patent on such apparatus was issued in 1864. Yet it has been only recently, with the great improvement in lenses, condensors and knowledge, that a really practical opaque projector has been made; and now, it should be distinctly understood, it fills its own place and is not, and can never be, in the same class as regards brilliancy with the transparent projector. On the other hand, it projects in the original colors, with perfect accuracy, cards and pictures which are much more beautifully colored than any but the most elaborate and expensive lantern-slides can ever be.

As for the cheap tin toys which are flooding the market, there is no question that they, too, have their place as a home amusement for little ones, but they bear the same relation to the real thing that the toy magic lantern with its tiny colored views—six or twelve to a slide—and its oily, smelly burner bears to a modern dissolving stereopticon.

#### EXPLANATION OF DIAGRAMS — SIMILAR LETTERS APPLY TO SIMILAR THINGS IN ALL THREE DIAGRAMS

Fig. 1. Diagram of an opaque projector, simple form, after a Bausch and Lomb model, which, however, uses a double condensor and a more elaborate copy-holder. A, arc, from which light radiates to C, the condensor, which transmits it in a parallel beam to P, the postal-card or other copy, from which the light is reflected and gathered up by the projection-lens, L, and focused on the screen. The copy, P, is held in place with some sort of door or other holder diagrammatically represented here as D.

Fig. 2 illustrates the enormous loss of light which takes place in opaque projectors in general and those cheaper forms without condensors in particular. No consideration is had here of the enlargement of size of picture from postal to screen and loss of light consequent upon such magnification. A, arc, from which light radiates in all directions. One ray of the entire lot forming the theoretical sphere of light which radiates from a point im-



OPAQUE PROJECTOR DIAGRAMS

pings on a certain spot on the copy, P, at the point F. This point, in turn, becomes a light-source by reflecting the ray it has received, in all directions. Some of these rays, the number depending on the diameter of f. value of the lens, L, are gathered up and projected in the form of an image on the screen, S. This, in turn, becomes a light-source by reflecting the light projected upon it, the light radiating in a theoretical hemisphere. Of these radiations a few, the number depending on the size of the pupil, enter any one spectator's eye. It is obvious that the greater the f. value of L, the more light will be thrown on S, and that a condensor interposed between A and P, as in Diagram 1, collects an enormous amount of light now going to waste in the theoretical sphere of light radiated from A, Fig. 2.

Fig. 3 shows diagrammatically an ordinary lantern-slide projection-apparatus, and should be contrasted with Fig. 2 to gain an idea of why reflected pictures can

never be so bright as those projected from lantern-slides. A, arc, from which light is collected by condensors, C, and transmitted in a cone to projection lens, L. The cone is here represented as having a blunt point, and the light-rays from C to L are not drawn at true angles, because no condensors form a perfect cone of light on account of spherical aberration, although they usually are represented as doing so in diagrams. L projects the great volume of light collected by C to the screen S. At the point F, one of the whole image taken for individual consideration, the light is radiated in a theoretical hemisphere as in Fig. 2, and only as many rays from this point as can be contained in the diameter of the pupil of the eye can enter at E.

Compare carefully with Fig. 2, and note that of the three sources of radiation in 2 — A, R and F — only A and F appear in Fig. 3, and that A is enormously enlarged in scope by the condensor, C.



SUNLIGHT AND SHADOW

SIXTH AMERICAN PHOTOGRAPHIC SALON

WILLIAM E. MACNAUGHTAN

# With a Camera in Beautiful Bavaria

## I. Nuremberg

WILFRED A. FRENCH, PH.D.

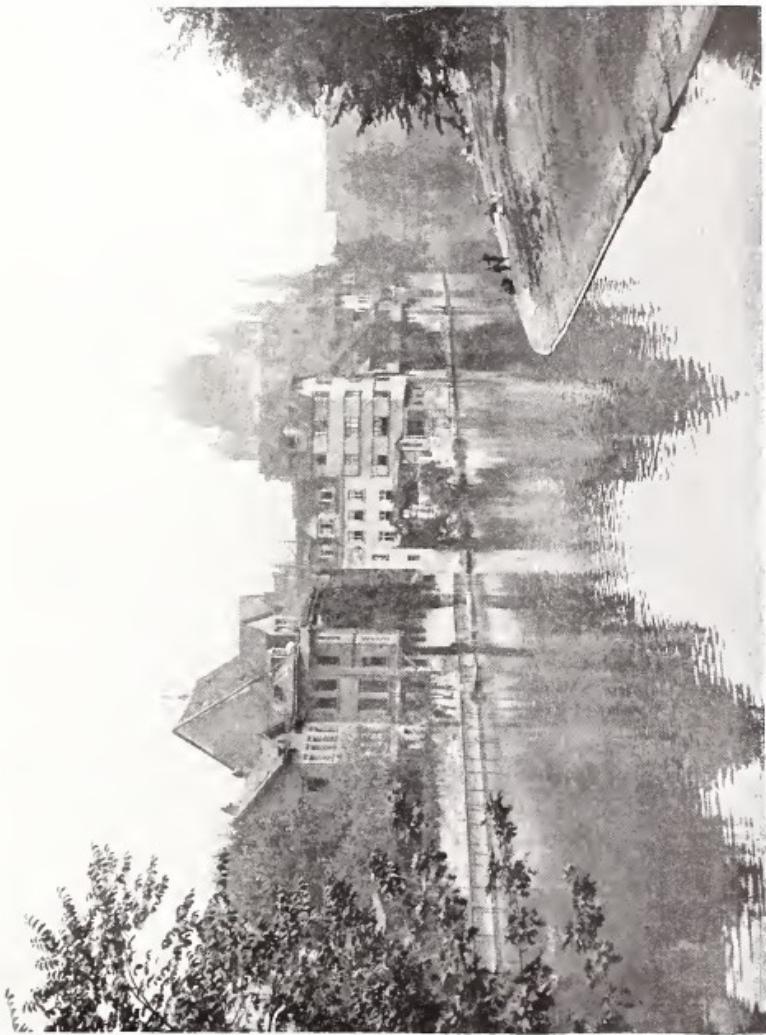
MY trip to Europe last summer was what the word implies, and not like one of those prolonged visits of former years. The object of my journey, this year, was the International Photographic Exposition, at Dresden. I, therefore, left New York August 10, on the new and magnificent steamer *Rotterdam*, than which a finer and more comfortable craft does not cross the ocean these days. The great ship behaved splendidly, and, as the weather was all that could be desired, everybody was on deck—or rather the *decks*, for three of them were allotted to the first-class passengers. Every seat in the dining-room was occupied, and all was merry and serene. The company at my table consisted mostly of musical people, and included several eminent singers *en route* to Bayreuth. The conversation turned frequently to the Wagner Festival, which was being held there this year, and to the probability that, on account of declining health and impending troubles, Frau Cosima Wagner would be obliged to relinquish her position as directing head of these famous musical productions. An ardent admirer of Wagner's music, yet never having visited Bayreuth, I was so impressed by what I heard that I was resolved to visit this Mecca of all true Wagnerites, even though tickets had to be secured four months in advance. But no time was to be lost, for the last performance of the season was to occur August 20, and the *Rotterdam* was not due to arrive at Rotterdam until the day before. But this sudden change in my itinerary necessitated curtailment of the journey by water; hence I disembarked at Boulogne and took the train for Cologne at Calais, departing thence at 1.15 A.M., August 19. There is some delightful scenery between Liège and Verviers, and of the sort that thrills every true camerist with delight. Whoever visits the Brussels Exposition

next year should not fail to stop at Liège and from there go by train to Chaudfontaine—a beautifully-situated watering-place. It will repay him. As I was on a fast express train, I could not very well complain of the rapidity with which it traveled through the Rhine Valley, speeding, as it did, past quaint little towns, picturesque ruins and frowning castles, which embellish both sides of the Rhine from Cologne to Mayence. It was tantalizing to the camerist not to be able to level the camera, now and then, at some well-known, picturesque object which he was approaching and which, in many cases, can be photographed to better advantage from the train level than from the steamboat. At Ehrenbreitstein, however, as the train slackened its speed, I managed to obtain a successful snap-shot of "Wilhelmsecke" across the Rhine. There is not much to delight the eye of a lover of nature until Aschaffenburg is reached, where the train enters one of the most picturesque countries in the world—Bavaria.

As we sped through the Main Valley, numerous little hamlets greeted us from afar, as they lay reposing peacefully, on either side of the river Main, amid rich-tinted settings of meadow and field. The eye could linger but briefly on their simple beauty, nor was I in a position to train my camera on these veritable "motion-pictures." Soon after the sun had set, the train passed through a tunnel, and approached a wealth of domes and spires silhouetted against the evening sky. It was Würzburg. During the brief halt here I noted the general character of the surroundings, and came to the conclusion that Würzburg merited a place in my next photographic itinerary. It was now dark and the rest of the journey to Nuremberg was sightless. We entered the *Bahnhof* at 9.30 P.M. I required no urging to rise

WILFRED A. FRENCH

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VIEW ON THE PEGNITZ, NUERMBERG



early the next morning. Phœbus had mounted his radiant chariot and was coursing across the blue heavens. I issued forth, camera in hand, scarcely realizing that my train for Bayreuth left one hour later. I gazed at familiar objects with a critical eye, estimating the adaptability of light, distance and surroundings to my requirements. I secured but one picture — a view of the apse of the St. Sebaldus Church, balanced by a view of the famous oriel window opposite. I was winding up the film when I noticed a tourist excitedly call a cab, jump in and rapidly recede. Just then a clock overhead struck nine. In fifteen minutes my train was to leave! I looked frantically for a cab, but none was in sight. A policeman informed me that they were all in use, most of them on the way to the *Bahnhof*, if not already there. The electrics were too slow and ran at long intervals. My only recourse was to cover the distance on foot, and this I did with an energy that must have surprised those staid burghers. With the aid of the hotel-porter, who had been anxiously looking for me, I managed to procure a ticket and get into a compartment of *Zweite Klasse* — a few seconds before the train started. I resolved to be at the station at least fifteen minutes before train-time, hereafter. In America the thing is simple enough. You merely get aboard, it matters not which car; if it be not the right car, the change can be easily made, even if you desire to sit in a parlor-car. In Europe you look down an endless perspective of doors, which project outwards before the train starts. They bear Roman numerals which indicate the various classes — I, II and III. You make a dash for one, when, somehow, you discover that it is a compartment for women, or, if for men, reserved for non-smokers. If you do not smoke, then the chances are that the compartment you desire to enter is intended for smokers. Sometimes the traveler is in luck and succeeds in his first attempt. And when, at last, the right compartment is found, it happens, sometimes, that the seats are all taken, in which case the search is continued until a place has been secured. A woman encounters the

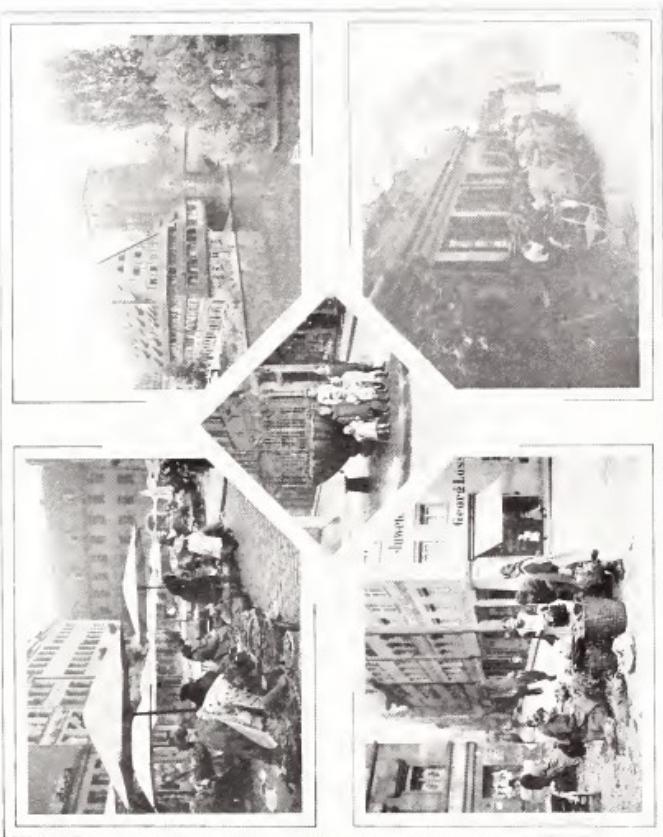
same difficulties, only she has, obviously, a harder time of it. The newer cars are provided with a corridor along the side, and when this is crowded with passengers all frantically looking for *Erste Klasse*, *Zweite Klasse*, *Raucher*, *Nicht-Raucher*, the scene is bewildering, yet not without its humorous side. The conductor — not the *Zugführer* — does his utmost to help and advise; but when there are many, and all clamoring for seats, the poor man is often at his wits' end, and really excites one's sympathy. He mops his brow and, amid groans and sighs, waddles about, giving a helping hand wherever he can. Of course this confusion prevails only during the height of the season. When the rush is over and normal conditions again prevail, the tourist obtains accommodations with facility, not only on the railways, but at the hotels, restaurants and elsewhere. He has but to choose.

It was fully ten minutes before I dropped into a seat — a corner of the compartment near the *couloir*, with little opportunity to enjoy the passing landscape. By-and-by, however, I began to realize that I was taking a tremendous risk in journeying to Bayreuth without so much as an idea how a ticket to the last performance of the season was to be procured. The curtain was to rise at 4 P.M. on that very day. However, I resolved not to worry and to hope that Dame Fortune would come to my aid. And she did. I will not trouble my readers with a recital of the various schemes I tried in order to obtain the coveted bit of pasteboard, and how at last, *fifteen minutes* before Dr. Muck raised his baton, success crowned my efforts. To hear a Wagner opera amid conditions that are inspiring is a privilege alone worth a journey across the ocean; and when that work is "Parsifal," a sacred music-drama, or, as the composer has named it, a *Bühnenweihfestspiel* (stage-consecrating-festival play), those of my readers who are music-lovers and admirers of the modern school will appreciate the intense pleasure that was mine. While Bayreuth has many of the attractions that characterize old, mediaeval towns, it does not appeal strongly to the camerist, unless

NUREMBERG SCENES

WILFRED A. FRENCH

*From Left to Right:* "Fruit-Market," "Weinstadel and Henkersteg,"  
"Watching the Camerist," "A-Marketing," "Al Fresco Luncheon,"

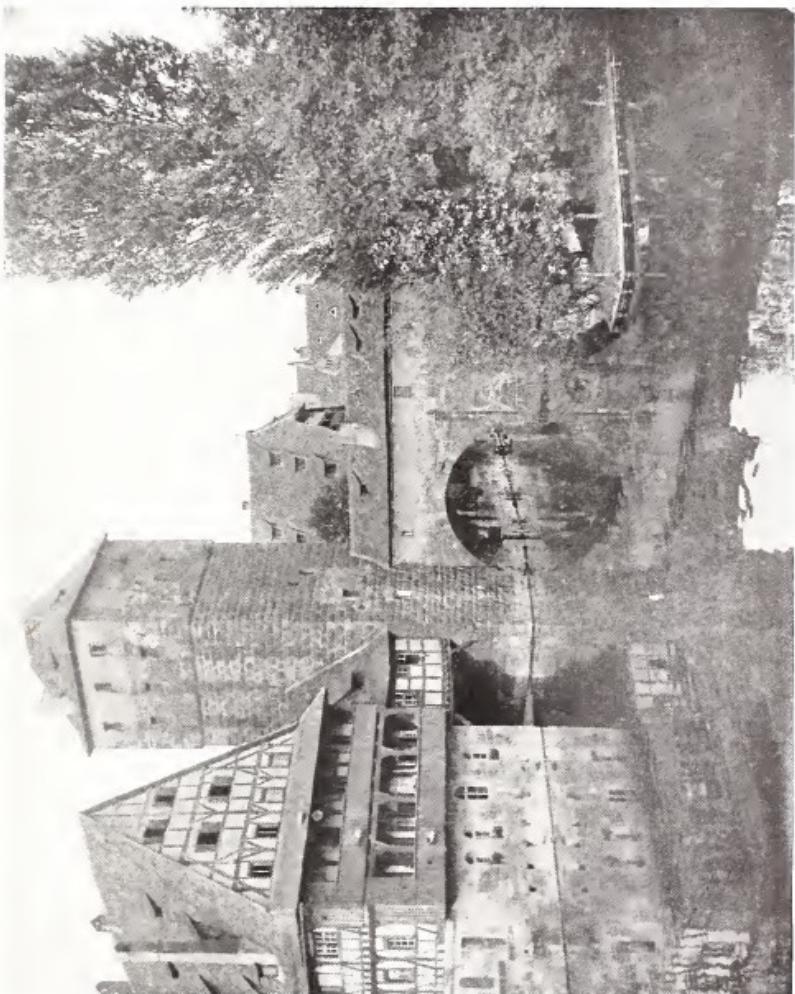


he be of a musical bent — and, in that case, he will try to obtain exposures of the places associated with Richard Wagner. I, therefore, considered the Villa Wahnfried, the home of the Wagner family. Its situation is idyllic, but not favorable to photography, unless the camerist be provided with a camera having either a swing-back or a rising lens-front. My  $3\frac{1}{4} \times 4\frac{1}{4}$  folding Weno fitted with a Voigtländer Collinear lens, though delightfully compact, had none of these features; hence in my souvenir-view of the famous structure the vertical lines converge slightly toward the top, which technical defect I had, however, fully anticipated. Wagner's grave was not accessible that morning, because Frau Wagner, now a woman broken in health and spirit, was seated grieving near the spot. I had noticed, however, several quaint camera-subjects in my hurried movements about the town; but I preferred to save my ammunition (films of special construction) for better material in Nuremberg and Rothenburg, later. August 21 I was at Dresden.

The beauty, variety and extent of the Photographic Exposition surpassed my highest expectations. Enough has appeared in these pages bearing on this interesting subject that I may be pardoned for slighting it, at this time. Nor will I devote much space to the consideration of the city itself, which, for sheer beauty and the number and importance of its attractions, is deservedly styled "the German Florence." Frequent visits had familiarized me with its salient features, yet I longed once more to revisit the famous picture-gallery and, particularly, the Royal Saxon Porcelain Manufactory in its new home — a village near Meissen, the *only* place where the genuine Royal Dresden china is made. I devoted myself, however, to the Photographic Exposition, held in a large palace with adjoining temporary buildings in the *Grosse Garten*, where I passed most of my time for a period of seven days. Towards the end of my sojourn in the Saxon capital the weather was dark and rainy, making it difficult to enjoy the pictorial sections. No artificial illumination was provided, which apparent omission

was not regretted by visiting experts, as it is a well-known fact that photographic prints are seen to the best advantage by strong daylight. At such times I was profitably occupied in the industrial and scientific sections. For an occasional change I would sit in one of the open-air restaurants and listen to the music of the excellent military band which played there every afternoon and evening while the Exposition was in progress — May 1 to October 30. Although not in a picture-taking mood, I made several exposures of interiors, merely as souvenirs. One of these was a view of the American amateur section, showing a group of prints by the Photo-Pictorialists of Buffalo, which is reproduced elsewhere in this issue. The permit issued for this purpose by Secretary Karl Weiss contained no restrictions whatever, so that I could have copied freely any picture, or series of pictures, in the Exposition. The pictures of the Photo-Scession were splendidly lighted and there was nothing to prevent me from committing an act of piracy, had I been so tempted.

The day before my departure from Dresden I made a brief visit to Berlin, where I called on my old friend Herr Rudolf Dührkoop, and inspected the spacious and magnificently-appointed studio of Nicola Perscheid. As each of these artists has formed the subject of an illustrated article in *PHOTO-ERA* (see issues of June, 1909, and November, 1908), it is needless to rehearse here their respective merits. Berlin, which, in commercial activity and nervous energy, resembles New York more than any other metropolis, again impressed me with its clean streets, its exemplary traffic-regulations and, particularly, its excellent street-car service. The "public-be-damned" policy of the American monopolists does not prevail here; *the people are accommodated*. For example: in Berlin every trolley-car carries on the front, overhead, a circular ground-glass sign, about two feet in diameter, electrically illuminated, and displaying a large, black numeral which designates a certain route. These signs are plainly visible a long way off, day or night. We



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DER HENKERSTEG, NUERMBERG

WILFRED A. FRENCH

could have this great convenience in America, but —. In Boston all the trolley-cars look alike, and it is almost impossible to distinguish one from the other, unless one is peculiarly gifted.

The air was filled with the aerial exploits of Count Zeppelin. The epidemic had seized upon everybody and everything. The tide was irresistible. I, too, succumbed, particularly at the news that the Zeppelin III had left Berlin and was, on its return flight, to soar over Nuremberg — the city I was just intending to visit. I left Dresden Saturday morning, August 28, and reached Nuremberg twelve hours later. The local newspapers issued bulletins which were posted throughout the city and the principal hotels: "Zeppelin III has met with a mishap and its arrival at Nuremberg will be delayed several days." Glad that the excitement had subsided somewhat, I sallied forth on a photographic prospecting-tour, the camera being replaced by a pocket-compass, note-book — and umbrella, for a light rain had set in, and continued for the rest of my stay. At several intervals during that time the sun coquettishly with the camerist, who, after a severe struggle, succeeded in capturing six prizes. The men on the spot — the local photographers — always have an advantage over the transient competitor; but the latter, often possessed of an amount of skill, experience and determination not to be despised, has also been known to come off triumphant. Niagara Falls and the Yosemite Valley, well-known pictorial localities in the United States, are notable examples of this statement. Was this true also of Nuremberg during my brief visit? It is not for me to say.

The river Pegnitz, flowing through the town and divided, in several places, by small islands into two narrow streams, affords the finest pictorial material in this picturesque medieval burg. Right and left the houses rise abruptly out of the water, producing delightful perspectives, and, in this respect, remind the visitor of Venice and Amsterdam. There are numerous bridges across the Pegnitz, from which, as well as from many other points

of vantage, the camerist may obtain delightful pictures. Of course, I had marked the Henkersteg (Hangman's Bridge), appropriately styled "The Bridge of Sighs," as the object of my particular consideration. I had planned to photograph it at such and such a time, but I had to reckon with my host — the rain. I succeeded only in part. At five o'clock one afternoon the sun blazed forth quite unexpectedly. I hurried at once to the *Max-Brücke* and to the point previously selected. On the way thither King Sol began to make merry with me; but just before he had completely hidden his face I squeezed the bulb. Flushed with success, I now coveted the opportunity to capture a view of this scene from a greater elevation, so as to include the entire building of the *Winstadel*, at the left, with watch-towers and church-spires rising in the distance. The propitious moment arrived at two o'clock the following day. With the assurance of "Nervy Nat," I gained admission to the dwelling which provided the viewpoint I had chosen. The two lower floors consisted of offices; and those above, of apartments. I politely laid my case before the proprietor of the suite on the third floor — a wealthy manufacturer, and hospitable to a fault. He generously offered me the use of the room I had indicated and, thus, matters proceeded finely. In a few moments, however, the fickle sun ceased to smile and gloom settled upon the scene; but my host assured me that this obscurity was only temporary, and induced me to remain. The heavy clouds, at last, began to disappear and, at three o'clock, the illumination was such that I was able to secure the picture. But I must not omit to mention the picture which I secured earlier in the day, before the fog had lifted, and which repaid me well after numerous unsuccessful visits. It is a view of the Synagogue taken from a point little frequented by tourists — the western extremity of the Island Schütt. As the city slopes gently upwards from either side of the Pegnitz, numerous important views may be taken with any good box-camera or with a folding outfit not provided with a rising lens-front. Nevertheless, for gen-

eral use, a camera the lens-front of which can be raised for either upright or horizontal views is well-nigh indispensable. Had this not been a hurried trip, I should certainly have taken with me a camera of this improved type. I therefore found my four-foot extension-tripod very useful, particularly in Rothenburg above the Tauber, which interesting city was next in my itinerary and will form the subject of an illustrated article in the February *Pictorial Era*. Anticipating a rich pictorial harvest in the city of the famous draught, I deemed it best to lay in an extra supply of films. Although I visited every place where that commodity was for sale, I was entirely unsuccessful. The dealers carried only the standard size, in different makes of

film, viz., cartridges having one and one-quarter inch flanges, but none with one-inch flanges—the kind that fitted my camera and which were no longer in demand. I was disappointed, but not dismayed.

The vicissitudes of the Zeppelin airship continued to be the chief topic of conversation, everywhere. On the day set for my departure for Nuremberg press-bulletins were issued which stated that the huge aerial craft was leaving Bittenfeld, but that its course over Nuremberg was seriously in doubt. Moreover, as the weather was now clearing and promised well for photography in Rothenburg, I came to a definite conclusion and left Nuremberg August 31.



A SOUVENIR OF NUERMBERG

WILFRED A. FRENCH

## EDITORIAL

### Improving Photo-Era

THE current issue of PHOTO-ERA presents several new, practical features which, no doubt, will commend themselves to its many friends. For a long time, with occasional exceptions, the front cover of the magazine has borne a design drawn by hand, which, henceforth, will be replaced by plates from original photographs. This idea accords fully with the character of a publication devoted to the art and science of photography. Of more importance, however, is the arrangement of the letterpress. During the past six years the reading-matter in the body of the magazine has been set up in large type, and in single column extending across the page. This style of typography has been found to be less favorable to the reading eye than the double-column arrangement which PHOTO-ERA adopted in its initial issue, twelve years ago, but discontinued in 1904. The restoration of this typographical feature will be welcomed by all, as it has another advantage, in that the amount of reading-matter is increased—a result approved by our readers, provided, of course, that there shall be no impairment in the quality of the text. It certainly shall be our aim to guard against such a contingency. The discontinuance of the department devoted to Photographic Patents will also be regarded a wise course. The majority of our readers are not interested in photographic inventions, which, however important and interesting they may be, rarely reach the practical stage. They indicate a healthy activity in the technical phase of the art and a means of pecuniary enrichment for enterprising patent-solicitors; that is all. Our adoption of the patent department was due to the suggestions of several warm friends of this magazine, although the regular consideration of this subject is an original feature of our distinguished cotemporary

*The British Journal of Photography*, which treats this specialty with exemplary thoroughness and perspicuity. The space which that department has hitherto occupied in PHOTO-ERA will be replaced by technical matters and items of general interest. More space will be devoted to matter which is particularly adapted to the needs of beginners, while the more advanced worker will find a greater number of items descriptive of foreign progress and investigation. Practical value will always be the only criterion by which every article submitted for publication in PHOTO-ERA will be judged. In spite of these changes in the general appearance of PHOTO-ERA—which we hope will be accepted as real improvements—we shall gladly welcome any friendly and feasible suggestions for the increased betterment of our publication.

### Our Salon Illustrations

WE realize, as well as any one, that the illustrations which accompany President Stevens's article on the Sixth American Salon in this issue are far from satisfactory. They do not measure up to our standard. The fault is entirely our own, inasmuch as we had the cuts made in Toledo, in order to save time. The experiment has proved obviously unsuccessful. In the future we shall try to have the plates made from original prints by our own half-tone engravers, artists in their line, who, however, are to be credited with the following plates: "A Winter's Night," on the front cover, by John F. Jones; "Sunlight and Shadow," by William E. Macnaughtan; "The Swing," by C. Yarnall Abbott, and all the Round Robin Guild and Nuremberg plates.

We hope to publish another article, perhaps two, on the Sixth American Salon. In that case the accompanying half-tone plates will be made, as usual, by our own engravers.

# THE CRUCIBLE

A MONTHLY DIGEST OF FACTS FOR PRACTICAL WORKERS

*With Reviews of Foreign Progress and Investigation*

Conducted by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department  
Address all such communications to Phil M. Riley, 383 Boylston Street, Boston

## Correct Orthochromatic Light-Filters

IN recent issues of the *Wiener Mitteilungen* Baron von Hübl describes the preparation and merits of light-filters of different intensities, particularly in respect to their adjustment to the color-sensitivity of certain plates. Much of the discussion would not prove interesting to the average reader, but a few paragraphs seem to point out the way to one not familiar with the theory of filters:

"A great deal has been said and written on the choice of the yellow light-filter for use with orthochromatic plates. Usually the worker goes by his experience and uses constantly the same light-filter, or considers only the character of the subject or the color-sensitivity of the plate in using filters of different degrees of color. It is by no means easy to recognize whether the filter corresponds to the conditions of correct reproduction of the luminosities of colored objects. Although we plainly realize the varying brightness of colors, we are scarcely able to judge of these differences in a quantitative manner. We can say that yellow light appears brighter than blue, but it is more difficult to distinguish between red and green in this respect, and the task of selecting from a series of gray papers the one which corresponds in brightness to a certain color is one of no little difficulty. Attempts have, therefore, been made on a theoretical basis to provide specifications for yellow light-filters best corresponding with the requirements of orthochromatic photography; that is to say, reproducing the colors of an original in correct photographic tones. Such a filter, which, to use a phrase of Pichier, may be called a 'tone-correct' filter, must obviously be adjusted to the color-sensitivity of a particular plate, but may be equally applicable for use with originals of any kind — paintings, portraits or landscapes.

"Whether the modification of the colors with a 'tone-correct' filter is best in all cases where colored objects are to be photographed is a question which is not easily decided. In the reproduction of paintings it may be said that the unanimous opinion is in favor of such a filter, but, when we come to landscape, opinions are almost equally divided. In this case we must give way a good deal to the judgment of amateur workers whose aims are at pictorialism; and, therefore, Paul Pichier, who has very carefully followed this branch of photography, may be taken as an authority on applied orthochro-

matism. He regards the use of a 'tone-correct' filter as absolutely necessary in landscape work, since such a filter alone affords the possibility of recording the actual effect of nature on the plate.

"The 'tone-correct' filter is lighter than the yellow screen most usually employed, corresponding to the Voigtländer contrast-filter a. It should, therefore, reduce any untrue and unpleasing characteristics of landscape pictures which occur as a result of too dark a yellow screen. The over-corrected lead-gray sky made with such filters, in which occur large masses of cloud wanting in detail, or the almost snow-white foliage which is seen in photographs, are even more untrue than the representations made on an ordinary plate. Generally a 'tone-correct' filter answers to the requirements of landscape photography; in certain cases, however, it is still necessary to use filters of other intensity. Among such cases may be named first the reproduction of certain paintings. The pure colors on a gray ground have a relatively brighter effect than blackish tones, since a certain indefinable quality, a characteristic richness, increase their luminosity, and the cinnabar-red of firelight in a painting representing a night scene is so luminous that it will be reproduced actually brighter than the cinnabar itself. Then it often happens in a painting that the color-scheme exists only as color. The objects in close proximity may be formed of colors of almost equal luminosity, so that reproduction with a 'tone-correct' filter leads only to confusion. Paintings possessing these features are difficult to reproduce, and require the aid of abnormal filters. Similar conditions are met with in the case of natural landscapes. Dr. Kleintjes has given an instance of this. In the case of a landscape photograph in which there is much clear blue sky and only comparatively little green foliage the sky should be at least as bright as the foliage. It must, perhaps, be reproduced somewhat darker; whilst the same sky, if it occurs only in a corner of a picture in which the masses of foliage are predominant, is to be represented as much brighter than these latter. And, as in this case it almost always happens that the suitable representation of the sky is an important point in the use of the different filters, the whitish-blue sky of a landscape containing much green should be represented as a bright gray tone, for which purpose a fairly dark yellow screen is necessary. If we were to use this filter also in the case of mountain scenery the deep blue sky would ap-

bear dark gray in the photograph against the snow and rocks, and not at all corresponding to our visual conception of its luminous blue. Apart from such cases, however, the rules for the translation of colors into tones of gray are quite definite, and photography has all to gain by taking account of the use of such 'tone-correct' filters. At times it is advisable to depart from these rules, and in these cases the strictness of the scientific rule needs to be relaxed."

### A Handy Dark-Room Lamp

WE illustrate herewith an exceedingly simple and practical dark-room lamp to be used where electric current is available.

Procure an ordinary two-quart glass fruit-jar, break out the porcelain lining in the cover and cut a hole through the cover just large enough to fit over the socket of an incandescent electric lamp; then solder cover and socket together. Line the inside of the jar with two thicknesses of good orange post-office paper. The best lamp for the purpose is an eight-candle-power show-case lamp, the same as shown in the illustration. Screw the lamp into the socket and screw the cover onto the jar, and you have a safe light of excellent illuminating-power.



When you desire to work by white light two turns will remove the jar. If developing-papers are being worked, obtain a second jar and line with light orange paper, screw into the cover fastened to the lamp and you have a safe and pleasant light for loading and development. By attaching sufficient cord to the lamp it can be moved to any part of the dark-room necessary and you have three lamps at a trifling cost.—*Studio Light.*

### Washing Films

WHEN films are washed in a receptacle provided with running water the current of the inward flow sets the films in motion and there is danger that the sharp angles at the ends of the films will dig small triangular pieces of gelatine out of other films in the dish. These defects are unnecessary and very difficult to spot out. It is a good plan, after fixation is complete, to cut off these angles with scissors to the form of a quarter-

circle. With this precaution and the use of an acid-hypo fixing-bath there is little danger of defects from this cause. In winter the acid-hypo bath is not so important, because solutions are easily kept cool; but in summer, when it is difficult to keep the temperature down to 65° F., alum and acid in the fixing-bath are important to harden the film, thus counteracting the effect of high temperature and its consequent troubles. The baths recommended for gaslight papers are excellent for plates and films, and it makes things the simpler to have one formula for all.

### Color-Photography on Paper

REFERENCE was made last month to the decline in popularity of color-photography after the first enthusiasm. The plates are more uniform today than hitherto, cost half as much and give little inconvenience in development by the "Simplified" method. All these facts are certain to make the Autochrome plate more popular. It never can become generally so, however, until it is possible to reproduce the transparencies on paper. Although the same brilliancy and depth can never be expected by reflected light, the average person does not accustom himself to the enjoyment of a transparency.

Many investigators are interested in the reproduction of screen-plate transparencies on paper, and most of them have looked for a solution of the problem through the bleach-out process. At first thought it would seem to furnish an easy means. In theory it does, but in practice the results are not uniform, and the problem presents so many unknown elements that an early solution is not to be expected.

The principle of the bleach-out process depends upon the fact that certain dyes possess the property of bleaching completely as a result of the action of light, but hold their color if protected by a transparent screen of like color. For instance, a blue will bleach out completely under a red or green screen, but will hold its color under a blue screen. When dyes representing the three fundamental colors are distributed on the same support and exposed to light under a color-transparency they bleach out according to the principle just stated, giving a positive in colors from a positive in colors. The difficulties result from the very nature of the dyes. They must be isolated from each other to prevent mutual action, and thus far it has been impossible to find a sensitizer or mixture of sensitizers which will yield uniform bleach-out action for all three colors. For instance, the sensitizer best suited to blue gives only poor results with red, while one for red is a desensitizer for blue. This is because of the fact that some dyes are very fugitive, while others are very permanent.

Of the many bright minds engaged upon this problem, none has been more enthusiastic than Dr. Smith, of Zurich, who is well known for his Uto paper. The future may bring forth a practical bleach-out process, and it is to be hoped that it will, as it means much for the popularity of color-photography.

# THE ROUND ROBIN GUILD

*An Association of Amateur Photographers*

Conducted by ELIZABETH FLINT WADE

This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography, although advanced camerists are just as welcome and many are numbered among its members. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free and may be obtained by sending name and address to PHOTO-ERA. The Round Robin Guild, 383 Boylston Street, Boston.

Send a stamp for complete prospectus.

## Unclaimed Pictures

PICTURES returned to Mr. Alfred Holcombe, Southampton, Mass., and to Frank Loveland, Meadville, Penn., were unclaimed, although the letters sent to these addresses have not been returned. Will these two members kindly send stamps to the editor of the Guild, with their correct addresses, and pictures will be forwarded at once.

## Intensifying Negatives

THE intensification of a negative means a process of treatment which increases the density of the film in order to obtain stronger contrasts between the lights and shadows in the finished print. If a print is made from a thin negative the light reaching the paper quickly gives a uniform color, and also, when toned, the print is of an unpleasing color, owing to the fact that the light did not have sufficient time to act on the paper to give depth and richness to the print.

There are a great many formulae for intensifying negatives. The most common one is the bleaching of the image with mercuric chloride and then blackening it in ammonia. This intensifier is specially good to use with a negative which has been correctly exposed but under-developed. It is prepared in two solutions — the bichloride solution for the first bath and the ammonia solution for the second bath. The proportions are as follows:

### Bleaching-Solution

Water .....	16 ounces
Muriatic acid.....	20 minimis
Mercury bichloride .....	1½ ounces

### Blackening-Solution

Water .....	10 ounces
Strong ammonia .....	2 drams

Dissolve the chemicals in the bleaching-solution in the order given, taking care that each is thoroughly dissolved before adding the next. The plate to be intensified is first washed for a few minutes, then placed for ten or fifteen minutes in a ten per cent solution of alum-water. Place the negative in a developing-tray film upward and flow with the mercury solution, keeping the tray in motion as during development. Presently the image will begin to appear as a

positive and, when the image is thoroughly whitened, remove it from the tray and wash for three or four minutes in running water; then place it film side up in a clean tray and cover it with the ammonia solution. The action of the ammonia changes the image back again to a negative, and deepens its density. In case the image is not dense enough the operation may be repeated.

Instead of the ammonia one may use Schlippe's salts for the blackening-solution. The proportions are fifteen grains of the salts to each ounce of water. In this solution the image turns to a warm black with excellent printing-qualities. As a further aid to good printing the negative may be soaked for a few minutes in a bath made of chrome yellow moist-color paint dissolved in water. This will tinge the film slightly and greatly enhance the richness of the print.

Lumière, of color-photography fame, recommends mercuric iodide for an intensifier. His special formula is as follows:

Water .....	10 ounces
Mercury iodide .....	45 grains
Sodium sulphite, anhydrous .....	440 "

Soak the plate for a few minutes until the film is wet, then immerse in the solution and rock the tray, observing closely the action of the intensifier. As soon as the plate has reached the proper stage remove from the tray, wash well and then place in a tray and flood with a ten per cent solution of sodium sulphite. If the plate is washed too long after being intensified the film will assume a greenish tinge. In place of the sodium sulphite the plate may be soaked for a few minutes after intensification in an all-aline developer of normal strength.

Sodium sulphite may be used in place of the ammonia or of the Schlippe's salts for blackening the image from the mercury bichloride intensifier. Dissolve an ounce of sodium sulphite in five ounces of water and, after rinsing the plate well from the mercuric chloride solution, place it in the tray containing the sodium sulphite and leave until the image has turned from white to black.

Uranium is a chemical which is used with much success in different processes of photography. Its use as an intensifier has been tested



BOYS SWIMMING  
PAUL LEWIS ANDERSON  
FIRST PRIZE — GENERAL COMPETITION



thoroughly and found very satisfactory. It may be made up in one solution ready for use, or it may be prepared in two separate solutions which are to be mixed together when needed.

The plate to be intensified with uranium must be thoroughly free from hypo, as if any traces of this chemical are left in the film the intensifying will not be a success. The solution for immediate use consists of:

Glacial acetic acid .....	½ ounce
Uranium nitrate .....	100 grains
Potassium ferricyanide.....	100 "
Water .....	10 ounces

The plate is placed film side up in a tray and covered with the solution. In a moment or two the image turns to a much warmer black, then to a brownish tone. The process must be watched carefully and the plate removed from the solution as soon as the proper density is reached. If the film contains any hypo the result will be what is called a "red fog." If such a state occurs, the plate must be removed at once from the intensifier and thoroughly washed. After the plate is dense enough rinse in an acid bath made of one dram of acetic acid to a pint of water. Leave the plate in this bath for five minutes, rinse well and dry. The color of the film is a reddish brown and seems to be specially helpful in the making of prints of beautiful tones.

If one wishes to make stock-solutions for use when needed the two here given will keep indefinitely if tightly corked.

#### *Solution 1*

Glacial acetic acid .....	3 drams
Uranium nitrate .....	120 grains
Water .....	12 ounces

#### *Solution 2*

Glacial acetic acid .....	1½ drams
Potassium ferricyanide.....	150 grains
Water .....	12 ounces
To use, mix in equal quantities.	

Silver nitrate is often used for intensifying and is the most flexible of intensifiers, being easily controlled and modified. Make up a stock solution of:

Ammonium sulphocyanide.....	3 ounces
Silver nitrate .....	60 grains
Sodium hyposulphite .....	150 "
Potassium bromide .....	18 "
Water .....	6 ounces

To use, take for every ounce of water one dram of the stock solution and one-third dram of rodinal developer. After the negative is intensified fix in a hypo bath made up of one ounce of hypo to eight ounces of water.

This method of intensification is very satisfactory for an under-developed negative and brings out detail and gives good contrasts. Intensification is often used with negatives which make good contact-prints for their use in making enlargements, the intensification strengthening the detail and making the negative specially effective for a plucky enlargement.

## The Round Robin Guild Monthly Competitions

*Closing the last day of every month.*

*Address all prints for competition to PHOTO-ERA, The Round Robin Guild Competition, 383 Boylston Street, Boston.*

### Prizes

*First Prize: Value \$10.00.*

*Second Prize: Value \$5.00.*

*Third Prize: Value \$2.50.*

*Honorable Mention:* Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention.

Prizes may be chosen by the winner, and will be awarded in books, magazines, enlargements, mounts, photographic materials or any article of a photographic or art nature which can be bought for the amount of the prize won.

### Rules

1. These competitions are free and open to all photographers, whether or not subscribers to PHOTO-ERA.

2. As many prints as desired, in any medium except blue-print, may be entered, but they must represent the unaided work of the competitor, and must be artistically mounted.

3. The right is reserved to withhold from the competitions all prints not up to the PHOTO-ERA standard.

4. A package of prints will not be considered eligible unless accompanied by return postage at the rate of one cent for each two ounces or fraction.

5. Each print entered must bear the maker's name, address, Guild number, the title of the picture and the name of the competition for which it is intended, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, step, exposure, developer and printing-process.

6. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA. If suitable, they will be reproduced, full credit in each case being given to the maker.

### Subjects for Competition

December — "Self-Portraits." Closes January 31.

1910

January — "My Favorite Photograph." Closes February 28.

February — "Decorative Treatment of Trees." Closes March 31.

March — "The Seasons." Closes April 30.

April — "Downhill Perspective." Closes May 31.

May — "Sunlight and Shadow." Closes June 30.

June — "Landscapes with Figures." Closes July 31.

THIRD  
PRIZE  
GENERAL  
COMPETITION



"If each before his own door swept,  
The village would be clean"

PAUL WIERUM

Awards — General

*First Prize:* Paul Lewis Anderson.

*Second Prize:* Richard Pertuch.

*Third Prize:* Paul Wierum.

*Honorable Mention:* R. S. Kauffman, Malcolm D. Miller, M.D., T. L. Mead, Jr., Emil Deibel, Sinsaburo Niwa, Louis Fleckenstein, T. W. Kilmer, M.D., Lewis P. Craig, G. Harrison Truman, E. W. Gibson, J. Ericsson Harvey, George Scherr, Walter J. McFeat, Anna C. Ray, Harry C. Gibson and J. P. Polk.

Meritorious work was submitted by A. B. Hargatt, F. E. Bronson, Chester M. Whitney, Harry G. Phister, F. F. Sornberger, C. W. Christiansen, Claude Davis Millar, Otto Koch, Claude B. Vail, L. M. Reightmyer, John J. Reilly, E. R. Bolander, Robert M. Storms, Armand Tibbitts, George H. Scip, Mrs. Alice E. Foster, W. S. McCleary, W. L. Crouch,

Miss C. M. Green, Clara Jacobson, W. C. Hodges, B. V. Constantinov, E. M. Child, Ernest P. Seabrook, John J. Wing and Bankson C. Wall.

The Forthcoming Competition

To "My Favorite Photograph" competition, closing February 28, the amateur is asked to send the one product of his own genius that pleases him best. Only one may be entered. This does not mean that the picture must be his best as far as technique and artistic merit are concerned. The late Henry P. Robinson, who did so much for the advancement of photography, was in the habit of saying, "Live with a picture half a year; and if at the end of that time you are still pleased with it, then it is probably all right."

Perhaps it may be hard to select one's favorite photograph. There may be several with equal claims for a preference. In such a case the choice



AN AUTUMN MORN

RICHARD PERTUCH

SECOND PRIZE — GENERAL COMPETITION

must be made by the law of exclusion until the one picture remains which has stood the test of elimination. In sending your "favorite photograph" please state in your letter of data the reasons why it is your favorite photograph.

One's "favorite photograph" deserves as good a mounting as one can devise.

## BEGINNER'S COLUMN

### Quarterly Contests for Beginners

*In these contests all Guild members are eligible EXCEPT those who have received Guild prizes in the past. Aside from this restriction, the rules which govern the monthly competitions will be in force here and the prizes will be payable in the same manner.*

All prints submitted, except prize-winners, will be returned if postage is sent.

#### PRIZES

*First Prize: Value \$10.00.*

*Second Prize: Value \$5.00.*

*Third Prize: Value \$2.50.*

*Honorable Mention:* Those whose work is worthy will be given Honorable Mention.

### Subjects for Competition

HOME-SCENES — CLOSES JAN. 15, 1910

This is a favorite subject of many workers at that season of the year, particularly those who do not enjoy winter-work outdoors. In the contest, however, are included scenes outdoors as well as within, and in summer as well as winter. The essential feature about them all must be that they portray familiar home-scenes with figures. Portraits may be entered, provided enough of the surroundings is in evidence for one familiar with the scene to recognize it.

SNOW-PICTURES — CLOSES APRIL 15, 1910

Here is presented a very wide field, so that nearly every camerist may enter one print, at least. The pictures may be snow-covered landscapes in all conditions of weather, park-scenes, outdoor sports on the snow or ice and a variety of other subjects, including human life or not.

SOUVENIR-PHOTOGRAPHS — CLOSES JULY 15, 1910

It is intended that this competition shall include photographs made as souvenirs while away from home, whether in one's own country or abroad, or only on a short vacation-trip. Thus they will portray objects of historic or other interest, and incidents worthy to be recorded. Figures may or may not be included.

## Intensifying Prints

PRINTS as well as negatives may be intensified if, through failure in printing or after-treatment, the image is not strong enough. Faint prints on either bromide or gaslight papers may be brought up into strong prints by a treatment similar to the intensification of a plate.

The print is first bleached in a mercury solution, using:

Mercuric chloride .....	10 grains
Ammonium chloride.....	20 "
Water .....	8 ounces

It is then transferred to a tray containing a solution made of sodium sulphite in the proportion of fifty grains to every ounce of water. This blackens the image and the result is a strong print. The action of the solution affects the color of the print and it becomes a warmish black, a brown, or sometimes it assumes a reddish tone, but the color is never unpleasing. The ammonia bath, such as recommended for negatives, may be used and gives a warm-colored image, but in time it seems to have a deleterious effect on the print, which fades or turns an unpleasant color.

A process of intensification with copper sulphate makes a print of good contrasts and helps to increase the detail in the shadows. This is recommended for use with gaslight prints:

Copper sulphate .....	100 grains
Potassium bromide .....	100 "
Water .....	10 ounces

After bleaching in this solution wash for at least five minutes in running water or in several changes of water, then re-develop with a solution made of one-third of a dram of a ten per cent solution of silver nitrate to each ounce of water. This after-treatment is for prints that have been under-developed. If a print is gray and weak from over-exposure, bleach first in the copper sulphate solution, then re-develop in a solution made of rodinal developer, using one-third of a dram of rodinal to every ounce of water.

One should strive to make prints that do not need any after-treatment save spotting and mounting. To do this one should separate the negatives from which gaslight prints are to be made into three classes; viz., thin negatives, negatives of approximately correct density and dense negatives. Then after making two or three trial prints from each class one will be able to gauge the time for a correct exposure. When the time for printing a gaslight picture has been ascertained it is a very wise idea to mark the time on the envelope which contains the negative. Then one always has a sure guide for further printing.

Platinum prints which have been under-exposed and to which the development gives flat tones with no contrast should never be thrown away. They should be intensified either with uranium, which gives the print a warm brown

color, or they may be intensified with silver, which does not affect the color. A good uranium intensifier for platinum prints is made of:

Uranium nitrate .....	12 grains
Potassium ferricyanide.....	12 "
Glacial acetic acid .....	6 drams
Sodium sulphite .....	12 grains
Water .....	10 ounces

Place the print in the bath and keep it moving until the image is intense enough, then rinse well and dry. Do not put more than one or two prints in the intensifier at a time, as if more are put in they intensify unevenly. Prints intensified with uranium range in tone from warm black to sepia and to a tone resembling sienna red. The intensification process is often resorted to in order to change the tone of a black and white platinum to a tone which will be better fitted for the subject.

Silver intensification does not affect the color of the print and hence is suited for prints which are to be kept in black and white. Make up a solution of:

Ferrous sulphate .....	50 grains
Acetic acid .....	400 drops
Water .....	10 ounces

Immerse the print in this solution and let it remain for a minute or two, or until thoroughly wet. Then drain off the liquid into a graduate and for each ounce add three drops of a ten per cent solution of silver nitrate, and turn the solution over the print. If the image is not strong enough drain off the liquid again and add the same quantity of the silver nitrate as before. Any print intensified with silver is practically permanent.

After intensifying a print with uranium it should be first washed in a bath containing a little acetic acid. The acid bath prevents the changing of the color of the print in the after-washing.

Carbon prints may also be intensified; for though as a rule one seldom errs on the side of under-exposure in making carbon prints, yet it sometimes will happen — and carbons are not only expensive, but some little trouble to make, so one does not wish to lose a print.

Carbon prints intensify quickly by the action of potassium permanganate. Dissolve one-third of an ounce of potash permanganate in eight ounces of water. Dip the print in this solution, letting the liquid thoroughly wet the surface, then drain and wash well and dry. If the image is not intense enough repeat the process. A print may have to be dipped in the solution three or four different times. It should be well dried between each action of the chemical.

## Wanted — A Wide-Angle Lens

LADY.— I would like you to paint my portrait with my hat on.

PAINTER.— Good gracious, madam, you'll have to go to a landscape painter for that.—*Megendorfer Blätter*.

A FEW HONORABLE MENTION PRINTS — GENERAL COMPETITION

*From Left to Right:* "On the Banks of the Neponset," I. Ericson Harvey; "Palmer Lake," Harry C. Gibson; "Sunshine and Shadow," T. L. Mead, Jr.; "A Merry Time," Sinsaburo Niwa; "Fitting for the Banks," Malcolm D. Miller, M.D.; "News in Chinatown," George Scherr; "Sunrise on the Pacific," Louis Fleckenstein; "On the Banks of the South Est., Tasmania," E. W. Gibson; "Gimme a Paper," G. Harrison Truman.



## Answers to Correspondents

Readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to ELIZABETH PLATE WADE, 321 Hudson Street, Buffalo, N.Y. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.

**FRANK H. J.—Reducing Dark Prints.** Frequently your dark prints make up ten per cent solutions of ammonium sulphocyanide and potassium ferricyanide. To each ounce of water add one hundred minims of the sulphocyanide and two grains of the ferricyanide solutions. This is to be used after the prints are toned and fixed. When the print is sufficiently reduced wash well and dry.

**JOHN H.—Sepias on Black Platinum.** You can use the mercuric chloride for obtaining a sepia tone or reddish brown on black platinum prints. The solution is used hot. Your formula will give very good satisfaction. In putting through the hydrochloric acid bath use one-eighth of the acid to one hundred and twenty ounces of water instead of the strength used for the gray prints.

**CARLTON E. G.—Binding Slides.** Do not try to make your binders for lantern-slides. Buy those already gummied which are cut the proper length for a slide. They are easy to manipulate and are so very cheap that it does not pay to waste one's time cutting and gumming strips. **Adhesive.** A very stout adhesive is made of two parts of water and four parts of fish-glue which, when dissolved, has added to it one part of sugar.

**D. N. B.—Intensification.** Evidently your negative has not been sufficiently developed. You can re-develop or you can intensify the negative. Use copper sulphate for intensifying, or else ammonia. There seems to be plenty of dried and with care you ought to be able to strong the negative to a good printing-quality.

**EDWARD H.—Green Stain.** The greenish stain which you say is on several of your negatives is doubtless what is known as "green fog." This is usually due to too much alkali in the developer. To remove, make a solution of fifty grains of thiocyanamide, twenty-five grains of citric acid and five ounces of water. Soak the film in this solution till the fog is removed, then wash well and dry. **Yellow Stain.** To remove the yellow stain, use a weak solution of iron ammonium. **Use of Rough Paper.** Use rough paper for the print and you will have a very simple more artistic picture than when printed on smooth paper. This negative has not fine details enough to look well on smooth paper.

**L. G. T.—Making Prints Flat.** Bromide prints may be made to be flat, so that they can be used for illustration, by simply soaking the prints for fifteen minutes in a solution of glycer-

ine, using one-half ounce of glycerine to eight ounces of water.

**DAVID L. S.—Acetic Acid.** When acetic acid is one of the ingredients of a formula use the "glacial acetic acid." That is what is intended, but the adjective is sometimes omitted.

**Pigment Print-Hardener.** A bath for hardening pigment prints is made by dissolving one ounce of powdered alum in twenty ounces of water, and then adding thirty minims of hydrochloric acid. Place the print in this bath for five minutes, then rinse in cold water and dry.

**SILVIO PAINI—Retouching Paper Positives.** To retouch or work on paper positives for the gray platinum use moist-color lampblack, thinning it until the tone of the part of the print to which it is to be applied is reached. For large places wash over with one sweep of the brush, let dry and if not deep enough repeat the process. If for small spots of white take a little color on the tip of the brush, which has previously been brought to a fine point, and then touch the white spot with it. Let it dry before applying a second coat. For sepia platinums use warm sepia and lampblack mixed to the right tone of the print and apply in the same way. For printing-out papers use the spotting-colors which come specially prepared for use with this paper.

**MRS. A. C.—The Use of Bromide.** The trouble with your prints is that you used too much potassium bromide in the developer, hence the peculiar tone of the prints. **Marks on Aristo Prints.** To remove marks on the surface of Aristo prints use a little of the concentrated toning-solution and rub lightly and the spots will disappear. Rinse well after applying.

**K. V. C.—Photography Abroad.** Use tin-foil for wrapping films when going abroad. It is wise to take a good supply of material with one, for films are now so protected that they are not affected by the moisture of the sea-voyage. In Germany, France and England one can get material, but in Italy it is sometimes hard to find what one wants in the way of films and plates. Yes, you can make exposures *en voyage* and either develop at once or you may have the films well protected and have them developed when you arrive.

**J. B. SMITH—Hydroquinone Stain.** You did not say what developer you used. If hydroquinone, you can remove the stain by applying a weak solution of Farmer's reducer with a wad of absorbent cotton, rinsing between each application. This will remove the stain effectually. Wash well and dry. **Pyro Stain.** If stained with pyro developer make up a solution of one-half ounce of citric acid, one and one-half ounces of ferrous sulphate, one-half ounce of alum and ten ounces of water. Place the plate in this bath until the stain is removed. The plate should be examined frequently, and as soon as clear wash well and dry.

**JOSEPH LANE—Hypo Eliminator.** The best eliminator of hypo from the negative is water. If a plate is washed freely there is no danger of hypo remaining in the film. To de-

stroy hypo use potassium percarbonate. Rinse the plate after fixing, place in a tray, cover with water and add from three to five grains of the potassium percarbonate. Rock the tray gently and when the liquid ceases effervescing remove the plate and wash for five or ten minutes.

**CARL MENZIE.—Copying a Map.** To make a lantern-slide map, attach the map to the wall so that it will be perfectly smooth. This can be done by using artists' thumb-tacks, which leave no mark of consequence on the paper. Set up the camera in a vertical position and so arranged that the focusing-glass is parallel with the map. The lens should point to the center of the map. Focus sharply, using as large a stop as will give clear definition at the corners. This is quite necessary, and may result in having to use a smaller stop and prolonging the exposure. Have the map evenly illuminated, the light shining on it directly instead of from one side. If the weather permits the map may be attached to the side of the house outdoors, when the illumination is, of course, even and the exposure very much shortened.

**ELLEN D. R.—Making Solutions.** In making up photographic solutions dissolve the ingredients in the order named in the formula. When using dried sodium sulphite stir the water as you drop the chemical into it. If not, the soda is likely to harden and needs very vigorous shaking to dissolve it. If the water is kept in active motion when chemicals are added they dissolve more readily and there is not likely to be any sediment at the bottom.

**N. B. FARRAR.—Developer for Under-Exposed Soft Pictures.** Use a diluted developer for short exposures. It works much slower, but gives much better detail than the stronger developer. Do not use hydroquinone by itself for soft negatives. Combine it with either eikonogen or metol, preferably the latter. The metol gives detail; and the hydroquinone, density.

**BERTHA M. B.—Machine Development.** It would seem from your letter that the trouble with your developing with the machine is that you do not use strong enough developer. You did not state the proportions, but from the fact that you use twenty-eight ounces of solution it may have been too weak. The film should remain very much longer in the machine when the developer is below normal strength, increasing the time of developing according as the developer is weakened. If half the strength of normal, then leave the film in twice as long, and so forth.

**S. D. P.—Mounting.** You will find the cover-papers or art-papers much better for mounting prints than the commercial mounts. You will find in the columns of PHOTO-ERA advertisements of these papers. Any dealer will be glad to send you samples from which to make your selection. Do not paste the print flat. Attach it to the mount by the top edge, using a good paste. All platinum prints will lie flat, and the effect is much better than if the picture is pasted smoothly to the mount.

## Print-Criticism

*Address all prints for criticism, enclosing return postage at the rate of one cent for each two ounces or fraction thereof, to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. Prints must bear the maker's name and address, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.*

**"THE MARSHES," C. G. H.**—This picture might be more appropriately called "The Pool," for it shows a pool of water with slender trees growing on one side, while on the other are reeds and rushes. In the immediate foreground is a large tree, the stem and the lower branches being all of it that is included in the picture. This is quite an interesting picture on account of the way the lights and shadows have been managed.

The time of day has been well chosen, being either early morning or late evening, so that the line of light on the horizon suggests either the rising or setting sun. The special fault of this picture is the conflicting of lines. The trees on the shore and their reflection in the water are two sets of lines, the tree in the foreground leaning a little toward the center of the picture makes another line and the edge of the pool running at an angle up into the reeds makes still another line. In a picture of such a scene these defects are hard to avoid, but by moving one's camera a little one can more often than not succeed in bringing all the lines into harmony.

**"THE MARKET-PLACE," C. M. R.**—This is a subject which always appeals to the amateur and the artist alike—a scene in an old Dutch market.

This market, however, was not taken either in Holland or Germany, but in America. In the present day, with our cosmopolitan population, one finds in the larger cities typical markets of certain nations. There is the Polish market, the Syrian market, the Dutch market, etc., etc., and the amateur has only to seek out these national marts which have been literally transplanted to our own country to find some very interesting and attractive subjects. In this case the market-scene shows a stall laden with all sorts of things which Germans love. Among the pile of cakes and sweetmeats at one side one can fancy he sees the Marzipan Brod, the Pfeffernüsse and the Lebkuchen so dear to the little Dutch maidens. A row of wooden shoes adorns the front of the stall.

Behind this very attractive board, so full of all sorts of things to tempt the buyer, is a stout, merry-faced German woman, ready to serve her customers, a group of whom are standing examining the stock and evidently making careful selection. This is a snap-shot, and if the ama-

man had waited a little and chosen just the right moment he would have secured a very interesting scene-picture. The figures in front of the stall are very much too large in comparison to the horses, and this is owing to the camera being so placed as to bring the figures in different planes. The camera at one side would have obviated this and the figures would have had their respective proportions. This is one of the faults of hit-or-miss snap-shots, especially when figures are included in the picture. One should learn to train his eye and hand alike, so that he may judge correctly and at the proper instant secure the desired picture.

*The Ploughman.* Dr. F. H.—This picture shows a man ploughing a field—not an unusual subject, but in this case very well treated. The picture is taken against the light, and the man and horses are in the shadow, the highlight just touching the shoulders of the man and the backs of the horses. The charm of this picture is its interesting background. Far away on the horizon one sees trees, scattered houses here and there and a church-spire rising from the midst of them. The light is that of late afternoon and the shadows are soft. The sky, while showing only light clouds, still gives the impression of the rather vivid light of a declining day. The fault of this picture is in the strong shadows on the freshly-turned furrows and the very light

color of the unploughed field. As the line which has been taken by the plough runs diagonally across the picture with nothing to break its continuity a print could be made from this negative by judiciously masking the foreground—the deeply-shadowed furrows—and equalizing the tone a little more. In other respects this would make a "worth while" picture. The print would bear trimming at the lower edge, which would improve the composition and bring the objects on a more uniform plane.

"Waiting," H. I. O.—This is a picture of a young woman standing in a woodland path, her head turned as if watching or waiting for some one to appear at the far end of the path which is faintly discernible through the trees. The figure in this picture is very gracefully posed, there being an unconsciousness of being photographed which is very attractive. The detail is well brought out and there is real depth to the woodland. This picture would be improved by trimming it at the top enough to cut off the patch of white which is the sky but which does not help the composition. This would make a good enlargement, using a rough bromide paper and getting the masses of light and shadow in their true values. In the enlargement the white collar worn by the young woman ought to have a little detail worked into it, using moist water-color and a soft camel's-hair brush.

## Plate-Speeds for Exposure-Guide on Opposite Page

Class 1 2	Class 1 1/4	Class 2 1/2
Lumière Sigma	Cramer Banner X	Cramer Anchor
Lumière Non-Halation Sigma	Cramer Banner X Non-Halation	Hammer Fast
Class 1	Eastman Extra Rapid	Seed 23
Anso Film, N. C. and Vidil	Hammer Extra Fast	Lumière Panchromatic
Cramer Crown	Hammer Extra Fast Ortho	Class 4
Cramer Crown Non-Halation	Hammer Non-Halation	Stanley Commercial
Cramer Instantaneous Iso	Hammer Non-Halation Ortho	Class 5
Cramer Inst. Iso Non-Halation	Seed 26x	Cramer Commercial
Cramer Isoton	Seed C. Ortho	Defender Non-Halation Plain
Cramer Trichromatic	Seed L. Ortho	Defender Non-Halation Ortho
Defender King	Seed Non-Halation	Defender Ortho Slow
Defender Ortho Inst.	Seed Non-Halation Ortho	Hammer Slow
Eastman N. C. Film	Standard Extra	Hammer Slow Ortho
Ensign Film	Standard Orthonon	Class 8
Hammer Special Extra Fast	Wellington Speedy	Cramer Slow Iso
Imperial Special Sensitive	Lumière Ortho A	Cramer Slow Iso Non-Halation
Imperial Orthochromic Special Sensitive	Lumière Ortho B	Class 12
Kodoid	Cramer Medium Iso	Defender Queen
Macmet	Cramer Medium Iso Non-Halation	Seed Process
Premo Film Pack	Wellington Iso Speedy	Class 100
Seed Gilt Edge 27		Lumière Autochrome
Standard Imperial Portrait		Lumière Red Label Slow
Standard Polychrome		
Stanh Regular		
Wellington Extra Speedy		

# The Round Robin Guild Exposure-Guide For January

COMPILED BY PHIL M. RILEY

UNDER this caption a brief table of exposures will be given in each issue for the guidance of Guild members during the following month. While the figures are indicative only, they will be found approximately accurate for the assumed conditions they have been applied to. If the exposure-times given are not considered imperative, but as suggestions, possibly to be varied slightly at the discretion of the worker, these tables will prove of great benefit to all who use them.

**The table below gives the exposures required by the different subjects and plates mentioned during the month of January on any fine day at noon, when the sun is shining brightly and the lens is working at f/8, or U. S. No. 4.**

Double the exposure if the sun is obscured but the light is fairly bright, or if f/11, U. S. No. 8, is used. Treble it when the light is rather dull, and between 9 and 10 A.M. and 2 and 3 P.M. Increase it four times when there are heavy clouds and very dull light, or if f/16, U. S. No. 16, is used. For f/5.6, U. S. No. 2, give half. At 11 A.M. and 1 P.M. increase the exposure one-fourth. From 10 to 11 A.M. and 1 to 2 P.M. increase it one-half.

## PLATES (List on Opposite Page)

SUBJECTS	Class $\frac{1}{2}$	Class 1	Class $\frac{1}{4}$	Class $\frac{1}{3}$	Class $\frac{1}{2}$	Class 1	Class $\frac{1}{2}$	Class 4	Class 5	Class 6	Class 8	Class 12	Class 100
Studies of sky and fleecy clouds; open snow-scenes without foreground .....	1/512	1/256	1/200	1/160	1/128	1/100	1/64	1/50	1/40	1/32	1/20	1/12	2/5
Open views of sea and sky; very dil-tant landscapes; studies of rather heavy cloud; winter-scenes having very light snow-covered foregrounds .....	1/256	1/128	1/100	1/80	1/64	1/50	1/32	1/25	1/20	1/16	1/10	4/5	
Open landscapes without foreground; open beach, harbor and shipping-scenes; yachts under sail; very light-colored objects; studies of dark clouds; average snow-scenes .....	1/128	1/64	1/50	1/40	1/32	1/25	1/16	1/12	1/10	1/8	1/5	1 3/5	
Average landscapes with light foreground; river-scenes; figure-studies in the open; light-colored buildings and monuments; wet street-scenes; snow-scenes with excessive contrast .....	1/64	1/32	1/25	1/20	1/16	1/12	1/8	1/6	1/5	1/4	2/5	3 1/5	
Landscapes with medium foreground; landscapes in fog or mist; buildings showing both sunny and shady sides; well lighted street-scenes; persons, animals and moving-objects at least thirty feet away .....	1/32	1/16	1/12	1/10	1/8	1/6	1/4	1/3	2/5	1/2	4/5	6 2/5	
Landscapes with heavy foreground; buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red brick buildings and other dark objects; groups outdoors .....	1/16	1/8	1/6	1/5	1/4	1/3	1/2	2/3	4/5	1	1 3/5	13	
Portraits outdoors in the shade; very dark near objects .....	1/8	1/4	1/3	2/5	1/2	2/3	1	1 1/3	1 3/5	2	3 1/5	26	
Badly-lighted river-banks, ravines, glades and under the trees .....	1/4	1/2	2/3	4/5	1	1 1/3	2	2 2/3	3 1/5	4	6 2/5	51	
Average indoor portraits in well-lighted room, light surroundings, big window and white reflector .....	3/4	1 1/2	2	2 2/5	3	4	6	8	10	12	19	154	

In order to make the exposures as accurate as possible after the final multiplications, all fractions accompanying whole numbers have been allowed to remain in this table, except when the whole numbers were so large that fractions might be disregarded as negligible. In such cases approximate figures have been given. Shutters will not always give the exact exposure required, but the nearest speed may be used if it is approximately correct. When the nearest speed is too short open the diaphragm a little; when too long, close it a little. Let the exposure be a little too long rather than too short, and the more contrast there is in the subject the more it may be over-timed. Over-exposure, unless excessive, can be controlled in development, but under-exposure will not give a satisfactory negative.

## OUR ILLUSTRATIONS

Our cover presents a startlingly realistic winter scene in which shadows furnish the motive. Although a daylight exposure; the use of bluish green carbon gives the effect of moonlight. Data: January, 11.30 A.M.; bright light; anastigmat lens, 12 inch focus, f/16; B. & J. 3-times filter; 2 seconds' exposure; Orthonon plate; pyro factorial development; carbon print printed from the reverse side of the negative.

"The Swing," by C. Yarnall Abbott, is in every way unique. Taken against the light, the result is an interesting effect of contrasted sunlight and shadow in masses which are well spaced. No data are available.

In his article on the Salon President Stevens has spoken individually of several prints; therefore it is sufficient to record only the data here.

"The Dancer," C. Yarnall Abbott, P. and S. Semi-Achromatic lens, 16-inch focus, wide open; 8 x 10 plate; edinol developer; platinum print.

"Under the Studio-Light," H. E. Stout, 8 x 10 Century camera; Gundlach lens, 18-inch focus, f. 6; March, 3 P.M.; bright light; 10 seconds' exposure; Orthonon plate; rodinal developer; platinum paper.

"Summer Sunlight," Paul Lewis Anderson, Century View-camera, 8 x 10; P. and S. Semi-Achromatic lens, 16-inch focus, f/6; B. & J. Ideal 3-times filter; July, 3.30 P.M.; intense light; 1 second exposure; Cramer Isonon plate; pyro-acetone developer; American platinum print.

"Landscape," F. J. Bruguere. Century View-camera, 8 x 10; P. and S. Semi-Achromatic lens, 14-inch focus, wide open; August, 4 P.M.; bright sun; 1/2 second exposure; Standard plate; pyrometol developer; platinum paper.

"The Closed Door," W. and G. Parrish. Premo camera, 6 1/2 x 8 1/2; summer, west two windows; 80 seconds' exposure; Stanley plate, 5 x 7; pyro-soda developer; Mirmont Semi-Matt paper.

"Winter on a Winding Stream," by John Chislett, is one of those soft, misty scenes which we so often associate with the name of this pictorialist. The sweeping curves of the stream in opposition to the vertical trees furnish interesting material indeed. Data: Rochester View-camera, 8 x 10; P. and S. Semi-Achromatic lens, 16-inch focus, wide open; February, 2 P.M.; faint sunlight; snap exposure 1 second; Cramer Inst. Iso plate; ortol developer; dark blue carbon print through a plate of glass to give a softer effect.

"Homeward Bound," F. L. Wright. Data: Kodona camera, 5 x 7; front combination of Turner-Reich lens, 18-inch focus, f/16; Cramer light filter; September, 10.30 A.M.; 1 second exposure; Cramer Iso plate; pyro developer; proof on P. O. P. paper copied on 8 x 10 plate, and printed on Barnet Cream Crayon bromide.

"Sunlight and Shadow," by W. E. Macnaughtan, is another of his many delightful sum-

mer scenes which are always so convincing in their rendering of "sunlight-warmth" and cloud-effects. Data: 4 x 5 Graflex camera; Cooke lens, 8 1/2-inch focus, f/11; June, 10 A.M.; good light; 2 1/2 second exposure; film; Eastman pyro developer; platinum print; clouds, double printed.

No data are available regarding "The Guitar," by Baron A. de Meyer, "Brittany," by Robert Demachy and "The Canal," by E. A. Loeb. The first is a pleasing effect of sunlight; Demachy's print, a characteristic scene cleverly treated for pictorial effect; and the last shows a "bigness" of arrangement which is in keeping with the modern tendency in Europe.

All of the Nuremberg views by Mr. French were made late in August with a Folding Hawk-eye camera, 3 1/2 x 4 1/2; Voigtländer Collinear lens, Series 3, 5 1/2-inch focus; Eastman film; pyrometol tank development; prints for reproduction on Solio and enlargements on Artura. "View on the Pegnitz," hazy, 11 A.M.; f/12; 2 1/2 second. "Fruit-Market," dark, 11.30 A.M.; f/9; 2 1/2 second. "Weinstadel and Henkersteg," dark, 3 P.M.; f/12; 1/2 second. "Watching the Camerist," sunny, 11.15 A.M.; f/9; 2 1/2 second. "A-marketing," sunny, 11.20 A.M.; f/9; 2 1/2 second. "Al Fresco Luncheon," hazy sun, 10 A.M.; f/9; 1/2 second. "Der Henkersteg," faint sun, 5 P.M.; f/9; 1/2 second. "A Souvenir of Nuremberg," dark, 4.10 P.M.; f/9; 1/2 second.

### The Monthly Competition

As was to be expected, the "General" competition brought forth the largest number of entries ever received in a Guild contest. A group of honorable mention prints is here reproduced, and others will appear singly in later issues. First honors went to Paul Lewis Anderson for "Boys Swimming," a beautiful treatment of commonplace material. The figures are well placed and the atmospheric quality delightful. Data: August, 4 P.M.; intense light; P. and S. lens, f/8; Cramer Isonon plate; Ideal ray-filter; 1 second exposure; pyro-acetone developer; American platinum print, mercury developed.

One of the most successful atmospheric effects ever produced by a Guild member is "An Autumn Morn," by Richard Pertuch. The scene itself is one of veritable enchantment. Data: September, 8 A.M.; foggy; rear combination of Collinear lens, f/5.6; 1 minute exposure with ray-filter; M. Q. developer; Velox enlargement.

Paul Wierum's third-prize print is an example of the pictorial possibilities of small negatives. It has the appearance of a charcoal drawing, but was worked up from a 2A Brownie film, enlarged and copied on a 5 x 7 plate, from which another enlargement was made on Monox bromide paper. Data: April, dull light; Eastman film; f/16; snap exposure; pyro developer.

## NOTES AND NEWS

Announcements and Reports of Club and Association Meetings, Exhibitions and Conventions  
are solicited for publication

### The Philadelphia Y. M. C. A.

STRUGGLING along for some years under "facilities" that it is a farce to so designate, but with some of its members hopeful for and working up an interest in its future development, the realization of success seems to be at last in sight for the Central Branch Y. M. C. A. Camera Club of Philadelphia, Penn.

The Association recently erected the most modern building for its purposes, costing \$1,000,000, and included plans for the camera club. Complete equipment followed, and the club, lately reorganized, is looking forward to its first winter's work with superior facilities. The rooms and equipment include the following: a developing-room with four stalls, each complete with all details, while a 3-speed electric fan ensures ventilation; a studio, 14 x 29 ft., arranged for both daylight and night portraiture and containing an 8 x 10 New York Studio portrait-camera with B. and L. Unar Portrait lens, backgrounds, screens and reflectors, posing-furniture, platform on rollers, dark-room for changing plates, Aristo lamp for night photography, etc. Adjoining is

the locker-room. Another room is equipped with enlarging and lantern-slide cameras illuminated with a Helios light. A box printing-apparatus affords ample opportunity for night printing, while the window to this room is equipped with adjustable white or ruby glass. Another room, with walls lined with soft pine covered with cloth, was arranged for exhibition-purposes. Many photographs ornament the social room, and comfortable chairs, rugs, reading-matter, plenty of light, etc., make the whole attractive. Troughs, running water trays, washing-tanks, graduates, electricity, trimmers, etc., have been supplied in abundance and variety wherever needed. A splendid projection-lantern is accessible for the use of the club. The usual rules of first-class clubs have been adopted. A good membership-committee with power to act ensures desirable members only. The club affords the amateur an opportunity of no small value when he has reached the limit of private facilities, as well as the beginner who is ambitious to do good work. Ladies can be taken to the studio to be photographed. The president is M. M. Osborne; secretary, Charles Haylar.



PORTRAIT-STUDIO OF THE PHILADELPHIA Y. M. C. A.



AMERICAN EXHIBITS AT THE DRESDEN EXPOSITION

### Americans at Dresden

In the photograph above is shown an interesting group of American photographs at Dresden. From left to right the prints are as follows: (large) "The Wave," F. H. Thompson; "Portrait," Chas. O. Axell; "September," E. B. Sabo; "Lombard Poplars," "Twilight," and "Italian Evening," W. H. Porterfield; "Evening," Oscar C. Anthony.

### Worcester Exhibition

The sixth Annual Exhibition of photographs at the Worcester Art Museum, Worcester, Mass., was held from October 30 to November 29. Mr. Joseph A. Davis deserves great credit for his pains to collect a beautiful and representative collection of pictorial photography from all parts of the country. Nearly three hundred prints were shown, and the usual high standard was maintained.

### Camera Club Print Interchange

The annual Interchange collection appeared at the Boston Camera Club early in December, the exhibition being members of the Portland Camera Club. Twenty-eight prints were shown, but, although the number was small, the artistic standard was high. Among the pictorialists represented were S. S. Stoddard, H. A. Roberts, H. A. Peckford, C. L. Clarke, F. W. Shaw, E. E. St. John, George H. Foeg and others.

The members of this Interchange consist of the following clubs: Capital Camera Club, Washington, D. C.; The Photographic Camera

Club of Baltimore; The Photographic Society of Philadelphia; Orange Camera Club; Boston Camera Club; Portland Camera Club; Photo-Pictorialists of Buffalo; Chicago Camera Club; Akron Camera Club, and The Photo-Section, Academy of Science and Art, Pittsburg, Penn.

### F. H. Thompson

It is with the utmost regret that we are obliged to record the suicide of F. H. Thompson, president of the Thompson Art Co., Portland, Me., in November. Worry over business matters is believed to have been the cause. Mr. Thompson was widely known as a successful photographer, and particularly for the Taco art-prints, which are to be found in most art-stores. He was a widower, and is survived by a son, Frederick M. Thompson, of Boston. Mr. Thompson will be very much missed, not only in the camera club, but in Masonic and numerous other circles, where his kindly disposition and helping hand made him a universal favorite. He was a great lover of nature in all her different aspects. His collection of microscopic slides is probably one of the finest individual collections that could be found anywhere. He entered no line of work but to excel. This he exemplified again later in life in his work with a camera. The beautiful things in life, as well as in nature, were instinctive with him, and his constant aim was perfection in all its minute details. For several years he was president of the Portland Camera Club, and could have had the office longer if he would have accepted it, but other business matters prevented.

## A New Photographic Industry

ROCHESTER is to have a new and important photographic industry in the Fireproof Film Company, with a capital stock of \$1,500,000. Henry Kuhn, formerly vice-president of the Defender Photo-Supply Co.; J. E. Thornton, the well-known English chemist and inventor, and others not yet announced are prominently identified with the enterprise. A building-site has been secured and a \$300,000 concrete factory will soon be erected. The concern will not confine itself to the manufacture of film exclusively, but will place upon the market a variety of photographic supplies and devices.

## An Eminent Pictorialist in Spain

We are glad to see that Spain, with its notable architectural beauties, including many left by the Romans and the Moors, is engaging the attention of our American pictorial workers. Mrs. Eleanor W. Willard spent six months in that interesting country not long ago, and now Mr. William H. Phillips will make a camera-tour to Andalusia and other sections of the Iberian peninsula from January 10 to March 10 of this year. Like Mrs. Willard, he will return with a goodly number of pictures with which to charm his friends.



*That which pleases the eye reaches the heart.  
Good materials produce good photographs. PHOTO-  
ERA tells you where to buy them.*



## Popular Lenses

MESSRS. A. E. Staley & Co., 19 Thavies Inn, a few feet from Holborn Circus, London, are dealers in photographic supplies, principally optical goods for photography. Mr. Staley, Jr., informed us, when we called on this firm, early last September, that he was doing a splendid business in Bausch & Lomb microscopes, which were imported from Rochester, N. Y.; also in photographic lenses, of which he carried the well-known Orthostigmatique, made by Steinheil & Sons, Munich, Germany. Mr. Staley informed us that the demand for these excellent lenses was steadily on the increase, and, from what he had learned, their popularity was well established in the United States.

## Louis Fleckenstein

THE many friends and admirers of this eminent pictorialist will be glad to know that he is enjoying a high degree of success and prosperity in his new home, Los Angeles, Cal. Even a month before Christmas he was overwhelmed with orders — all important and lucrative ones. One is always glad to hear that artistic efforts along sane lines joined to high-minded and logical business-methods are adequately recognized, as they are in this case. Mr. Fleckenstein enjoys the support and respect of a patronage in

his city of which many a *confrère* in one of our larger cities might well envy him. We are sure that all wish Mr. Fleckenstein continued health and success.



*The independent policy and high standard maintained by PHOTO-ERA have placed it in a class by itself. It never aspired to lead those who also ran — competition has been too great.*

## BOOK-REVIEWS

*Books reviewed in this magazine, or any others our readers may desire, will be furnished by us at the lowest market-prices.*

PHOTOGRAPHIC OPTICS AND COLOR-PHOTOGRAPHY, by G. Lindsay Johnson. Numerous illustrations, including several color-plates. Price, \$3.00 net; postage, 10 cents. D. Van Nostrand Company, New York, 1909.

This is the first of a proposed series of handbooks by the author in which is given a brief description of the various existing forms of lenses and cameras, as well as of all the simple problems connected with the lens and general photographic optics, including the principles of lantern-projection, kinematography and the theory and practice of the formation of the image — each subject illustrated by abundant examples. This important feature is found in no other books hitherto published on this subject. The author, with exceptional fairness, has selected the best in each department, whether of English, German or American manufacture. Prejudice finds no lodgment in his mind. The subject of color-photography, embracing the several systems now in use, is treated with admirable thoroughness and perspicuity. There are several very successful facsimile reproductions of autochromes — one in particular, an opal in matrix, which is an example of exquisite realism. We do not hesitate to pronounce the work the best yet written in the English language. It should have a place in the library of every student and optician.

PHOTOGRAPHS OF THE YEAR 1909. Edited by H. Snowden Ward, F.R.P.S. Price, paper covers, \$1.00; cloth-bound, \$1.50. Tennant & Ward, New York; Dawbarn & Ward, Ltd., London.

This, the latest issue of the popular English annual, is, like the preceding issues, full of interest. The text is devoted to papers on "Pictorial Photography in France," by Robert Demachy; "Pictorial Photography in Spain," by Manuel Mendez Leon; "Artistic Photography in Germany," by Matthias Mastren; "Artistic Photography in Australia," by Walter Burke, and "Work of the Year," by H. Snowden Ward. The illustrations, of which there is the usual number, have been selected with discrimination, and illustrate the various schools, including those of America. In comparing the pictures of the vari-

ous workers represented, one is impressed by the various methods of composition, several of which — multiplicity of detail and divided interest (see examples by Demachy, Puyo and others) — illustrate a weakness still common among pictorial workers. On the other hand, simplicity in composition illustrates a means to higher artistic achievement. The most pleasing illustrations of this issue of *Photograms* are by Moffat, Annan, Keighley, Mortimer, Whitehead, Holding, Marshall, Dührkoop, Ziesemer, Hofmeister, Sury and Misonne. In his foreword the editor regrets that his work on the book was closed before the greater exhibitions were open, thus missing the opportunity to reproduce some important pictorial works. It so happens that among the illustrations is a large number of subjects exhibited at the 1900 London Salon and not a few which appeared at the "Royal." While Mr. Ward's work is worthy of commendation, the absence of a chapter on American pictorial photography is regretted. It is hoped that the next issue will not be marked by this deficiency. The volume is worthy to be added to the library of every person interested in the progress of pictorial photography.

THE A B C GUIDE TO AUTOTYPE CARBON PRINTING, Price, 50 cents, post-paid. Dawbarn & Ward, Ltd., London. American agent: George Murphy, Inc., 57 East 9th St., New York City.

"If there is published a simple and reliable guide to carbon printing, I will buy it at once!" This remark has been made to us a great many times, and the inquirers will be glad to know that such a book is now on the market. Its author is the late J. R. Sawyer, but the work is revised to date. The volume consists of seventy-five well-printed pages, and includes numerous photographs showing the methods of manipulation. This makes the book all the more valuable to beginners, to whom it is highly recommended.

COMPOSITION IN PORTRAITURE, by Sydney Allan (Sadakichi Hartmann), 136 illustrations in half-tone and numerous diagrams. Large 8vo. Price, \$1.00. Edward L. Wilson, New York. Among the numerous treatises on composition written for the express benefit of the professional photographer, none approaches in practical value the volume by Mr. Allan. Few professional artists have mingled with photographers of quite so freely as has Mr. Allan, who seems to have acquired an intimate knowledge of studio-work and dark-room operations. This, added to a thorough acquaintance with the possibilities of the limitations of the photographic art, enables the author to impart to his instructive treatise compactness, directness, simplicity and clearness. After indicating the character and pose of the head Mr. Allan treats in detail the profile view of the face, the full face and three-quarters view, discussing their artistic possibilities; standing and sitting positions; backgrounds; portrait studies; tone and values, and light-effects. In

discussing these different subjects the author calls to his aid notable but not threadbare examples of modern painting, as well as specimens of photographic portraiture from native and foreign schools, illustrating certain points which, in his opinion, should be either emulated or avoided. In these criticisms Mr. Allan displays rare intelligence, penetration and, what is rarer still, genuine impartiality. His preference of modern painters to the old masters, so far as they may aid the portrait-photographer, is interesting, and warranted by sound judgment. The illustrations are wisely chosen and finely reproduced. The book makes a legitimate appeal to every worker in portraiture.

THE ART OF THE BELGIAN GALLERIES, by Esther Singleton. Large 12mo, 48 full-page duogravures. Price, \$2.00, net. L. C. Page & Co., Boston.

This volume is a valuable addition to the attractive series of illustrated hand-books of famous picture-galleries published by L. C. Page & Co. The author describes the masterpieces of Flemish art to be found in Antwerp, Brussels, Bruges and elsewhere in Belgium, embracing the works of the artists of the XVth century up to the present time. The book is a decided help to the students in tracing the course of Flemish art and its influence upon the latter-day French painting. The first portion of the work is devoted to short biographies of the chief masters who are represented in the Belgium galleries, and includes several great artists, such as Frans Hals, wrongfully claimed by the Dutch. The author treats her subject in a highly creditable manner, and a thorough perusal of her illuminating pages affords an excellent preparatory education to all who intend to visit the Universal Exposition of Brussels this year. The illustrations are of paintings which, while important, have not become common by reproduction. The volume is extremely attractive in its rich, decorative binding and, with its valuable contents, reflects great credit on the sagacity and taste of the publishers, L. C. Page and Company.

DELFTEWARE, DUTCH AND ENGLISH, by N. Hudson Moore. Copious illustrations. Price, \$1.00, net. Frederick A. Stokes Co., New York.

An interesting and instructive story this, of the Dutch potters, their process and their creations. Mr. Moore's little volume is inviting to Americans, in particular; for choice specimens of Delftware are found not only in the Rijks Museum and the British Museum, but in the art-museums of New York and Boston, from which productive sources the author has obtained most of the illustrative material for his hand-book. To his knowledge of the fine arts the photographic practitioner should add an acquaintance with the art of pottery, which will enable him to enjoy intelligently the many beautiful specimens to be found in art-museums and private collections.

# WITH THE TRADE

## Vulcan Dry-Plates

THE Defender Dry-Plate Company made a happy selection of a name for the new dry-plate which is now being marketed — Vulcan Dry-Plate! If we recall our mythology, Vulcan was the brawny god of the Greeks who, in his mammoth smithy under Mount Etna, forged the thunderbolts of Jove. Do you get the connection? One of the principal factors in a dry-plate is speed. When we want to tell how unusually fast something is we say it is "quicker than lightning." So, do you see, in honor of the maker of Jove's thunderbolts, the Defender Dry-Plate Company called its unusually speedy dry-plate the Vulcan Dry-Plate. The company makes more claims for the plate than speed, however; it says that the quality is second to nothing in the dry-plate line, that the plate has wonderful gradation, particularly fine grain and is very rich in silver. If these things are true — and there is no reason to doubt the statements of this reputable company — then the Vulcan Dry-Plate is something of a marvel. The Defender Company has been ever careful to make moderate claims for its products, so we will take it for granted that the Vulcan Dry-Plate is "the real thing."

## The Goerz Catalog

SIX cents in stamps brings to any address the latest catalog of Goerz lenses. It is money well spent, for the book is at once the most artistic and yet thoroughly practical lens-catalog it has been our good fortune to see. The descriptive matter is quite on a par with the goods themselves, which are more varied and interesting this year than ever. Many beautiful reproductions demonstrate the merits of the various types of lens-construction, while the text gives the most detailed information. Of particular interest are the new types of cameras such as the Anglo, the Folding Reflex, the Autofoc-Tenax and the Vest-Pocket Tenax. The Folding Reflex is unquestionably one of the most ingenious instruments ever devised, while the Vest-Pocket Tenax is the acme of compactness, although in conjunction with the special Tenax enlarger it gives excellent 5 x 7 prints.

## Cooke Portrait-Lenses

IT is their wide range of usefulness that has made the Series VI Cooke portrait-lenses so popular. The mere revolving of the front portion of the mount to a given point introduces that roundness and softness desired by the good professional when photographing heads at close range, and this has the effect of gaining considerable depth of focus. For groups and figure-studies the softness may be reduced slightly at

pleasure. The Series VI lenses are extremely compact and may thus be used for commercial work outdoors, with or without a focal plane shutter. With the revolving portion of the lens-mount set to its farthest limit these same lenses give mathematically fine definition to the edge of the plate, even with the full aperture of F/5.6, and may be used even for copying and enlarging with the same success as may the other series of Cooke anastigmats.

## Pictorial Lenses

To this class belongs preeminently the P. & S. Semi-Achromatic lens, which is used with artistic effect by many prominent pictorialists, including A. L. Coburn, Clarence White, C. Yarnall Abbott, Paul L. Anderson, John Chislett and many others. Those interested are referred to the makers' "ad" in this issue and, for the price-list giving full description of these serviceable lenses, to Pinkham & Smith, 288 Boylston St., Boston.

## An Attractive Show-Window

ONE of the numerous optical stores on Boylston St., Boston, Mass., and one which also carries a photographic department, is A. E. Covelle and Company. A few days after the Harvard-Yale football game this firm displayed in one of its windows number of small enlargements representing some of the exciting episodes of that memorable game. Careful count was kept of the number of persons who examined these pictures in one day from 9 A.M. to 11 P.M. It proved to be over 12,000.

## Hanging Photographic Prints

A VISIT, at this time, to the various camera clubs, picture-galleries, etc., where photographic prints are displayed shows how inadequate, even primitive, are the means employed to suspend them, whether framed or only mounted. The devices used for this purpose are often ludicrous. Sometimes the suspended prints will drop to the floor at the slightest touch or the faintest breeze, and the tender care devoted to the hanging of them is often attended with dire results. It is for this reason that the Handhook is hailed with joy throughout the land. It is simplicity itself, and yet constructed scientifically, so that when attached to the wall or any surface to hold a picture or other object it will be able to stand a tremendous strain before giving way, which very rarely happens. It can be instantly attached to any surface of wood, burlap, paper, plaster, fabric, whether the same be a solid or flexible. If you have any doubt about the resourcefulness of this simple little device send for a free sample to the manufacturers, August Goerz & Company, Newark, N. J., or the nearest dealer.

### Wellington Canvas Bromide

The newest introduction of Wellington & Ward is a Cream Canvas Bromide. This paper has a delightful canvas-grain surface with a delicate cream tint for sepia toning. This grade of bromide is particularly adapted to exhibition work and high-grade portraiture. A special package of three sheets of 8 x 10 can be obtained for trial by sending 25 cents to Ralph Harris & Co., 220 Bromfield St., Boston.

### The Isostigmator in the Navy

This popular-priced anastigmat seems to be selling very rapidly, and giving satisfaction wherever used. The American agents, Williams, Brown & Earle, of Philadelphia, Penn., are just now filling an order for two large lenses of 17-inch focus—one of them, a Series I A, to be used in the Navy Department.

### Preparing for a Photographic Career

In the December issue we mentioned a rare opportunity for students to obtain valuable professional experience under the famous German master of photography—Nicola Perscheid. We stated that the charge for tuition was one thousand Reichsmarks per annum. This was a mistake, and should have read fifteen hundred marks (\$375) for the total length of time required to become proficient, whether it be one, two or three years. That there will be many applications from students is anticipated.

There is a saying, and a true one, that the United States can furnish thorough, practical courses, even in the fine arts and music, equal to those in Europe; and it cannot be denied that America can produce photographic experts as readily as can any European country. The facilities furnished by the Illinois College of Photography, for instance, commend themselves to all those who prefer to acquire a photographic education in this country.

### Gold Medal to Ilford Products

A long time ago the few manufacturing-firms who have been accorded a gold medal at the International Photographic Exposition, at Dresden, 1909, is the Ilford, Ltd., for their very superior papers and glass plates.

### The Ibso Shutter

The Ibso is by no means an ordinary shutter. Although of medium price, it employs the sector system—which is acknowledged the fastest method known for inter-lens shutters. The Ibso is operable at speeds from  $\frac{1}{50}$  to one second with bulb and time exposures and a very practicable safety-lock—a distinctive feature—which prevents accidental exposure. It may be operated with finger-lever or antinous release. The perfect finish and general workmanship, its lightness and simplicity, make it a shutter that will do credit to any high-class outfit. Burke & James, Chicago, Agents.

### A Wise Investment

WHERE so much is done to satisfy the appetite of picture-lovers—and good pictures are not cheap—our readers are reminded that \$5.00 is the price of twelve volumes filled with an abundance of pictorial art and art-literature of the highest quality—an investment we heartily commend to all. We refer to *The International Studio*, a standard monthly art-publication, published by John Lane Company, 110-114 West 32d St., New York. Combined with PHOTO-ERA the price of this treasure-trove is considerably reduced, the two costing but \$5.55. Every issue is something to be pleasurable anticipated. The color-plates, of which there are several to an issue, alone are worth more than the price of subscription. The facsimile (in color) of Gregory's beautiful oil-painting, "Marooned," which embellished the sumptuous December number, 1909, would readily sell for \$1.00. Appropriately framed, this effective bit of color will surely grace the home of any art-lover. As a help to pictorial composition and artistic decoration, besides its many other valuable features, *The International Studio* is quite unrivaled.

### Mr. Hallen Burnt Out

WE are sorry to announce that the Hallen Studio, 500 Fifth Ave., New York, was entirely destroyed by fire November 25. Fortunately, we had the opportunity to select several prints illustrating the sterling merits of this artist's ability, which will be published in a near issue of PHOTO-ERA.

## PHOTOGRAPHIC EXHIBITIONS

Information for publication under this heading is solicited

Address or Title	Date	Entries Close	Particulars of
50th American Photographic Salon Chicago, Ill.	Feb. 1-28		
St. Louis, Mo.	Mar. 6-14		
St. Paul, Minn.	Mar. 24 to		
Atlanta, Ga.	Apr. 6		
	Apr. 20-30		
			C. C. Taylor, Sec'y, 3236 Cambridge Ave., Toledo, O.

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Official Organ of the American Federation of Photographic Societies

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Contributions relating to photography in any and all of its branches are solicited and will receive our most careful consideration. While not accepting responsibility for unrequested manuscripts, we will endeavor to return them if not available, provided return-postage is enclosed.

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Opposite page: Wilfred A. French

GEORGS-BRUNNEN, ROTENBURG  
WILFRED A. FRENCH



# PHOTO-ERA

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## The Art of Observation

### Photography as an Aid

WILLIAM FINDLAY

EVERY one possesses in a greater or less degree the art of observation; if it is not assiduously cultivated the faculty will become fallow and one will pass through life without appreciating much of the beauty that lies around. On the other hand, if it is stimulated by constant use it may engender a love of nature and art which will lift the soul above the cares attending the daily round, the common task. And I know of no better aid to this than a knowledge of the technique and a devotion to the art of photography. It may be looked at askance by followers of the creative arts — painters, sculptors, architects, etc. They may say in their hearts, "Photography is a mere mechanical process. Our art requires long and patient study, a close observation of nature; and to make any mark in the world one requires, above all, genius." Supposing all this were granted except the statement in the first sentence — proof of the fallacy of which is recorded by the exquisite illustrations which appear in these pages, month by month; no mere mechanism is shown here, of a surely! — then if photography cultivates a love of the beautiful and an appreciation of these creative arts, educates the faculty of observation, and is in itself a medium of recording some of the fleeting masterpieces of nature, is it not entitled to soar in the realms of art?

In the little corner of the vineyard in which I labor its educative influence has been and is at work. I have known many who started photography as a hobby — some who had not patience to overcome the initial difficulties, others who waxed valiant in fight and overcame the armies of the aliens in the shape of innumerable disappointments and failures. And it is of the benefit that has been derived by and the pleasure that has been instilled into the lives of some of these that I wish to write.

One of my acquaintances confessed to me the other day that photography had been his best friend. It had revealed to him many of nature's secrets that he might never have known had he not been in quest of pictures and, when they had been secured, information regarding them. And now when he takes his rambles, whether it be in a city street, in a country lane, by the seashore, among mountain fastnesses, or mid the fields and woods, he is ever on the alert, and, instead of walking along dreamily, he can always get food for reflection and

Finds tongues in trees, books in the running  
brooks,

Sermons in stones, and good in everything.

As he is a journalist, wielding a graceful pen, these reflections are often seen in print, and most entertaining reading they make.

Another friend who makes an annual tour abroad, and who has traveled over a good part of the globe in this manner, was not, until recently, acquainted with the mysteries of the camera. But before making his latest journey he was a diligent student; and, though he went in fear and trembling as to the results of his prospective exposures, he has returned with many charming pictures, and confesses that

Of sights he'd seen in lands he'd been,  
So strange, so far away,

none could equal those he had witnessed on this occasion. What made the journey, despite much bad weather, so pleasant? Simply the companionship of his camera, and its aid in quickening his powers of observation.

With regard to the little corner already mentioned, I thought I knew it very well. My youthful steps often strayed along the banks of a river near my home, and, though in childhood, youth and manhood I considered it somewhat pretty, still, it was not to be compared in beauty to a sister stream by whose silvery tide many happy holidays were spent. The city, too, was commonplace, and the heart pined for more romantic spots. Photography, however, soon opened my eyes to the beauty lying around. "Nature's Archway," two giant trees which met overhead, was situated on the banks of the stream considered so inferior in scenic beauty to its neighbor — though, unfortunately, the owner of the trees asked himself one day, "Why cumbereth they the ground?" and straightway set about to have them cut down. Surely had *his* faculty of observation been cultivated they would still have survived to enhance the beauty of the spot.

Two towers have been for centuries mirrored in a placid pool on this same river, but their beauty did not appeal to me so forcibly until after my favorite photographs of them were secured. Now I never gaze upon them, or the hoary old Gothic building which they surmount, without a deep feeling of veneration for the builders — nay, artists — who reared them so many years ago.

A forest of firs within easy walking-distance of my home was ripe unto the harvest, if such an expression can be used with regard to forestry. Growing up along with them were some beeches, which an expert in these matters tells me is a very bad combination. The growth of the firs had been much too rapid for the latter, with the result that, instead of growing up stout, sturdy trees, they became "scantlings." The good trees were cut down, but these were left as "The Residue of the Clearing." One wonders whether the woodsmen were gifted with the artistic sense, when a blow with an axe would have laid these scantlings low; or was it that their commercial value was nil? At any rate, one individual has to thank them for leaving the trees unharmed, and, for a brief space, making their frail forms an interesting feature in the landscape. Unfortunately, nature herself was not so kind; for a fierce wind laid them low, and a replica of the picture here reproduced cannot be secured.

This evidence, then, adduced in support of the contention put forward in the opening sentences, may be considered as detached fragments from a great cloud of witnesses. For I take it that many others could say with us that their cameras have made them better acquainted with their surroundings, and enabled them to find beauty in unpromising quarters. It has made them more appreciative of nature's bounty, which she showers upon us with no unsparing hand. It has made them better fitted to admire the skill and craftsmanship displayed in human handiwork, whether belonging to this or a bygone age; and it may have simulated a love of literature appraising the beauty lying all around us. If it has, this will be found an inexhaustible source of pleasure; for though these poets of nature, such as Wordsworth, Tennyson, Longfellow, Whittier and Burns, and, of a later date and a distinct type, Richard Jeffries, did not use the camera, they have given to the world word-pictures of their surroundings as vivid as any painter could have put upon canvas or any photographer could have secured on a sensitive plate.

Penna. State Library,  
Lancaster, Pa.

*Not to be taken from  
the Library.*



THE RESIDUE OF THE CLEARING  
WILLIAM FINDLAY



# A Photographic Slide-Rule

A. LOCKETT

**T**HE photographic slide-rule, a cardboard model of which is shown in the Scientific and Technical Section of the Royal Photographic Society's Exhibition, is intended to facilitate optical and other calculations, enabling results to be arrived at automatically. It consists, as will be seen by the accompanying illustration, of two diagonal scales A and B, joining at a right angle, and a vertical scale C, against which a slide D carrying an arrow-pointer moves freely in a slot. To the slide D is pivoted a movable ruler E by means of a winged nut. The ruler E may be of any material, but transparent bone or celluloid is preferable, as the whole of the graduations are then readily seen during adjustment. The two diagonal scales are graduated in tenths of an inch, the zero point of each coinciding at the angle. Thirty divisions, as shown, are sufficient for most ordinary purposes, but there is no necessary limit. The divisions on the vertical scale are each equal to the diagonal of a square whose sides measure one-tenth of an inch, and in number may be half those on the diagonal scales, in the present case fifteen. The slot in which the slide D moves must bisect the right angle formed by the two diagonal scales, and is arranged so as not to cut off any of the graduations, the shape of the ruler being also designed with this object in view. To insert correctly the arrow-pointer on the slide D, the lower edge of the ruler E is set against 10 on both the diagonal scales. In this position of the ruler the arrow should be pointing to 5 on the vertical scale. A mark is therefore made against 5 on the slide and the arrow drawn and inked in, after which it will register accurately for any position of the ruler.

Such problems as ascertaining the focal length of a lens, finding the focal length that results from combining two lenses, ascertaining the necessary length for a studio with a given lens, estimating the

distance required for a lantern-screen under any specified conditions, obtaining original measurements from photographs, and so on, are quickly and accurately solved by this appliance. In addition, it is useful for the solution of many other optical, arithmetical and mathematical problems, of both a photographic and a non-photographic nature.

A few typical examples of its use may be given, these being chosen for their practical character and their application to every-day work, although many of a more complex and experimental kind might be quoted.

## FINDING FOCAL LENGTH OF COMBINED LENSES

What will be the focal length obtained by placing a supplementary positive lens of twelve-inch focus in contact with a photographic objective of twenty-four-inch focus?

The illustration shows the solution of this problem. Set the ruler against 12 and 24 respectively on the diagonal scales. The arrow will then indicate the resulting focal length on the vertical scale; i.e., eight inches.

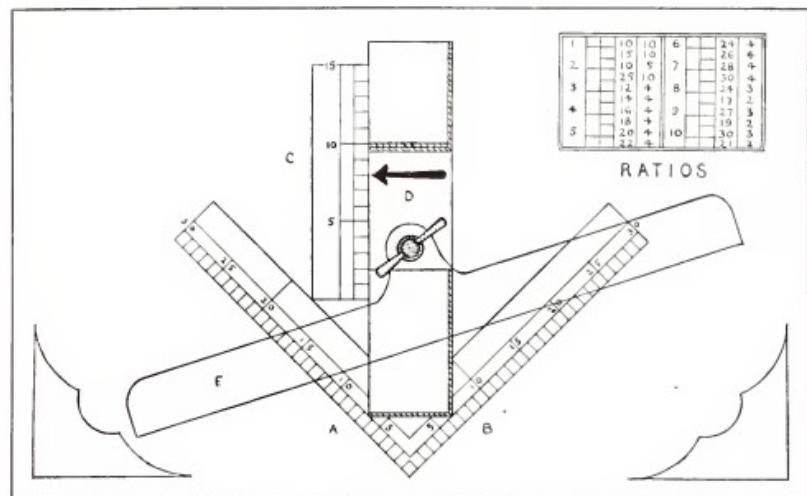
## FINDING DISTANCE FOR LANTERN-SCREEN

What distance must the screen be from the lantern to obtain a picture six feet in diameter, the objective being of seven-inch focus?

Set the ruler against 3 (the lantern-slide opening being three inches square) and 7 respectively on the diagonal scales, and clamp the winged nut. Then shift the ruler from 3 to 6, and at its other end will be read the required distance in feet; i.e., fourteen feet.

## FINDING NECESSARY FOCUS FOR LANTERN-OBJECTIVE

What focus lantern-objective must be used to obtain a picture fifteen feet in diameter, with the lantern thirty feet from the screen?



A PHOTOGRAPHIC SLIDE-RULE

Set the ruler against 15 and 30 respectively and clamp the winged nut. Then shift it from 15 to 3 (the lantern-slide opening being three inches square), and at the other end will be read the required focus of the objective; i.e., six inches.

#### FINDING DISTANCES FOR ENLARGING OR REDUCING

It is desired to enlarge from quarter-plate to whole-plate with a seven-inch focus lens. What must be the distances between easel and lens and negative and lens?

This is an enlargement of two diameters. Against 2 in the table of ratios will be found the numbers 10 and 5. Set the ruler against 10 and 5 respectively on the diagonal scales, and clamp the winged nut. Then shift the ruler until the arrow on the slide comes against 7 (the focus of the lens) on the vertical scale. The required distances will then be indicated by the ruler on the diagonal scales; i.e., twenty-one inches and ten and one-half inches. Exactly the same procedure is used for reduction, only the distances are reversed, the shorter one being between the lens and sensitive paper, or plate. The

table of ratios provides the necessary figures for any degree of enlargement or reduction up to ten and one-half diameters; other ratios may be obtained by selecting two numbers in the required proportions.

#### FINDING LENGTH OF STUDIO

What length of studio is necessary for a full-length cabinet portrait with a twelve-inch focus lens, assuming the sitter's height to be six feet and the desired height of the image in the photograph to be four and one-half inches?

Set the ruler against 4½ and 12 respectively on the diagonal scales and clamp the winged nut. Then move the ruler from 4½ to 6, and at the other end will be read the distance from lens to sitter in feet; i.e., sixteen feet. To this must be added a reasonable allowance of space for the camera, operator and background—say another six feet, making a minimum length of twenty-two feet for the studio.

#### ASCERTAINING MEASUREMENTS FROM PHOTOGRAPHS

A statue in a photograph is three inches high; the distance from the lens is known

to have been fifteen feet, and the focal length of the lens nine inches. What was the real height of the statue?

Set the ruler against 3 and 9 respectively on the diagonal scales and clamp the winged nut. Then shift it from 9 to 15, and at the other end will be read the required height in feet; i.e., five feet.

#### FINDING PRINCIPAL FOCUS OF LENS

Set up the camera and focus sharply on any near object at full aperture. When the object is in focus (the size of the image being immaterial) measure the distances from object to lens-center and from lens-center to focusing-screen. It is sufficiently accurate, with a doublet lens, to measure from the diaphragm. Set the ruler at these distances on the diagonal scales, and the arrow will then indicate the principal focus length of the lens on the vertical scale.

Example: a cabinet photograph is focused, and the two distances (conjugate foci) are found to be thirty inches and

seven and one-half inches respectively. On setting the ruler to 30 and  $7\frac{1}{2}$  on the diagonal scales the arrow will point to 6 on the vertical scale. The lens, therefore, is of six-inch focus.

Possibly enough has been said to show the many possible applications of the photographic slide-rule. Besides its use for simplifying calculations, it is obviously of value for checking the accuracy of the same when the usual arithmetical methods are preferred.

In conclusion, it may not have been noticed that the appliance forms a universal multiplication-table, since if the ruler is set against the multiplicand and 1 respectively, and clamped, it will indicate the product when shifted from 1 to the multiplier, whatever the numbers may be. Division is also possible, in an inverse manner, by setting the ruler on the dividend and divisor respectively, clamping it, and shifting it to 1, when the other end will indicate the quotient.—*British Journal of Photography*.



GOING TO THE FIELDS

HONORABLE MENTION — GENERAL COMPETITION

R. S. KAUFFMAN



DAVID  
ANNA C. RAY  
HONORABLE MENTION — GENERAL COMPETITION



# Control with Development Papers

JOHN STERRY

THE tendency to green in the blacks with bromide papers generally, and a few gaslight papers, is by far the greatest difficulty met with, and tends to limit the range of exposure available. It has, therefore, received considerable attention, and has led to the choice of a developer, which is described later on, which would be about the last to be used for such papers in the usual way.

The latitude of exposure appears to vary:

1. With the make of paper.
2. With the surface, matt, semi-matt and glossy.
3. With the amount of bromide in the developer.
4. With the dilution of the developer.
5. With the developing-agent used.

No. 1 rests entirely with the makers, and No. 2 is unavoidable, so need not be further considered. Only one paper so far has had to be rejected as unsuitable (a very slow, glossy gaslight, which certainly has not more latitude than two or three times the minimum exposure), whilst the best matt rapid bromide has reached thirty times the minimum, giving a good black print with the latest form of developer mentioned below.

Nos. 3 and 4 may be taken together, and it is soon found that to obtain good blacks, and the greatest latitude in exposure that any particular paper can give, the developer must be as active as possible, whilst the bromide is kept low and yet sufficient in quantity to give the necessary control.

No. 5. As to choice of developer. In an article in the "British Journal Almanack, 1864," on "Selective Developers," those then known were classed thus: "Pyrogallol, ferrous oxalate and hydroquinone, especially when used with free bromide, select and develop those portions of the plate first which have received most light, and afterwards bring up the

detail, and may, therefore, be called density-giving developers. Eikonogen, rodinal and amidol, especially when used without any free bromide, immediately begin to reduce the silver where the least light has acted, density slowly increasing. These may therefore be called detail-giving developers."

As our present object is to prevent the detail from coming up too quickly, one naturally turns to the first class as being the most suitable, and hydroquinone as probably the best of the three (glycin and others might be tried).

The choice therefore rests between:

1. Hydroquinone and sodium carbonate.
2. Hydroquinone and caustic soda.
3. Hydroquinone and formalin.

1. Hydroquinone and sodium carbonate is very good indeed for gaslight papers when it is desired only to secure either black, warm black or brown prints, but this particular developer will be found to fail to give a long range of black with either gaslight or bromide papers.

2. Hydroquinone and caustic soda is evidently a good developer, but did not give such good results as No. 3, possibly owing to the sample of caustic soda not being in very good condition.

3. Hydroquinone and formalin has proved far better than any other yet tried — that is, for blacks on all papers — and materially increases the general range of efficiency. This should be made up as follows and used full strength:

Hydroquinone .....	66 grains
Sodium sulphite .....	3 ounces
Potassium bromide .....	44 grains
Formalin .....	1½ drams
Water to .....	10 ounces

With very long exposures a further addition of bromide may be necessary to give sufficient control.

It is not desirable that the paper should

have an exposure too near the minimum for the usual method of development, as any forcing of the developer tends to general yellow stain. Bromide papers should be completely developed in from one to five minutes; and gaslight papers, in from one-half to three minutes.

The following test of the method in actual work was arranged to show the lines upon which it is well to commence, and also to see to what extent papers might be developed in the same developer without injury. Half a dozen prints were required from a quarter-plate negative suitable for gaslight paper.

The first was given a test exposure of half an inch of magnesium ribbon at nine inches, and put into one ounce of the above developer. A good black print was obtained in about four minutes, showing by the slow action that the exposure was not very materially above the minimum. The next received double exposure, and developed more quickly. The next again doubled, and so on to the fifth, which,

therefore, had sixteen times the first; but, as this showed signs of slower development than the last, indicating a falling off in the strength, the sixth was given the same exposure and developed in new developer.

All six were good prints. Nos. 1, 2 and 3, black; Nos. 4 and 5, good warm black; and No. 6, black, with the faintest trace of warmth. From No. 6, which developed very rapidly, and was almost beyond control with this amount of bromide, it will be seen that for perfect blacks the developer must be kept up to the full strength.

All bromide papers may be treated as of one rapidity by this method, and gaslight as requiring about thirty times as much exposure.

The selection of the paper to be used with any negative will depend solely upon the range or gradation that the paper is capable of giving, and both bromide and gaslight papers are now stocked by dealers as suitable for thin or dense negatives.

— *Photography and Focus.*



A COUNTRY ROAD

T. W. KILMER, M.D.

HONORABLE MENTION — GENERAL COMPETITION

A. J. WILSON

EARLY MORNING



# With a Camera in Beautiful Bavaria

## II. Rothenburg

WILFRED A. FRENCH, PH.D.

ROTHENBURG o/T — oberhalb der Tauber or above the Tauber —to distinguish it from other towns of the same name — bears the distinction of being the quaintest mediaval spot in all Germany. There are numerous cities and towns in the empire which have preserved many of their ancient landmarks; notably, Nuremberg, Dinkelsbühl, Hildesheim, Braunschweig, Eisenach and Frankfort. For a long time the honor now borne by Rothenburg was held by Nuremberg; but ever since the spirit of modern progress and commercial revival began to sweep through Germany the city of Dürer and Sachs made but a feeble attempt to maintain its general mediaval character. Rothenburg is situated on the edge of a high plateau, which slopes abruptly towards the Tauber — a stream of diminutive size — and is reached by a branch road from Steinach, on the main line between Ansbach and Würzburg. Its population is only about eight thousand, yet the town can boast a wealth of fascinating pictures unequalled anywhere else in Europe. The visitor is captivated by admirably preserved mediaval towers, gateways, fountains, dormered and half-timbered houses and oriel windows which greet him whichever way he turns. It seems as though he were looking at the pictures of some fairy-story. All these things, together with the well-preserved ramparts and tranquil character of the place, present a picture which carries the mind back to the days of chivalry and knighthood. This illusion is heightened by the absence of street-cars, as well as other indications of modern activity. To be sure, ordinary vehicles of utility, such as wagons, carts and the hotel omnibuses, are daily sights and, during the summer season, an occasional touring-car adds to the life created by tourists; but at other times of the year the town lapses into a state of lethargy

Like Hameln, Weinsburg and other towns, Rothenburg rejoices in a striking and favorite legend which it perpetuates, and which has proved a lucrative source of revenue to the inhabitants. It is a chapter in the history of the town — no mere tradition, thank you, but an actual occurrence, corroborated by indisputable evidence. This historic event dates back to the Thirty Years' War, and took place in 1631, after the ferocious Tilly, generalissimo of the imperial army, had captured the town, though not without heroic resistance on the part of the inhabitants. Enraged by the loss of many of his best troops, the heartless victor ordered that the town be destroyed, the leading inhabitants slain and the rest placed at the mercy of his soldiery. As he rode to the *Rathhaus* there was great lamentation, and women and children clung to his stirrups, pitifully crying for mercy. With vile imprecations he cast them off, crying, "Let the dogs live; I will be merciful. No one shall die but the burgomaster and his counselors!" After he had reached the great hall of the *Rathhaus* he called for wine. A frightened girl proffered him a huge, brimming goblet of the best vintage, the size of which caused the tyrant to burst into a great laugh. Holding up the bulky vessel, he said, "Am I to drink this?" Then, with grim humor, "If any man of Rothenburg will drink this at a single draught I will spare the city and every life, to boot!" Silence fell upon the assembly, when a former burgomaster, Nusch by name, advanced and, making a motion of assent, took the goblet from Tilly's hands. Amid silence and wonder he drank; and no one breathed as the foot of the goblet slowly rose in the air. He drank, and continued to drink, until not a drop was left; then fell senseless to the floor. "Revive him!" cried Tilly, and Nusch slowly regained his senses. Tilly



TAUBER VALLEY, TOWARD DETTWANG, ROTENBURG  
WILFRED A. FRENCH



was a good loser and quick to appreciate an act of daring. "You have won!" he exclaimed with admiration, as Nusch raised himself and turned his head. The savior of Rothenburg could scarce reply, but managed to gasp out good-naturedly, "I never — could — save — another — town." Those familiar with the beer-holding capacity of the practised Bavarian toper may have witnessed similar bibulous feats — performed, however, from no philanthropic motives, but rather for the sole purpose of gratifying an abnormal appetite.



ANOTHER MEISTERTRUNK

Tilly's capture of Rothenburg is considered by the inhabitants the principal event in the town's history, and it furnishes appropriate material for a series of commemorative paintings to be seen in the council hall of the *Rathhaus*. It is celebrated Whitmonday each year by a pageant, also a play enacted in the *Kaisersaal* of the *Rathhaus*, in which the participants are arrayed in costumes, uniforms and accoutrements of the period. Then the town appears in festal attire and is filled with visitors from far and near, who come to behold the interesting spectacle which culminates in the famous draft of

wine — the *Meistertrunk*. Last year the most attractive of the open-air scenes of the pageant were impressed upon Autochrome plates and reproduced by the three-color process in the form of facsimile post-cards. They were so admirably executed that I procured a set.

Owing to the uncertain state of the weather, I allotted four days to Rothenburg, although the average tourist arrives one day and leaves on the next. Had it not rained continuously the third day of my sojourn, I could have resumed my journey twenty-four hours sooner. The moment I stepped off the train on the day of my arrival I handed my *Gepackschein* (baggage-check) to the porter of the *Goldener Hirsch* and walked the short distance to the hotel, for I desired that nothing of interest should escape my notice. I found that most of my fellow-travelers were carrying out a similar purpose. According to the town's regulations — which are carefully observed — all new structures or any form of reconstruction must conform to ancient lines. Buildings, including factories and the new railway-station, which are erected outside of the town, are exempt. In five minutes I stood before the *Roderthor*, passing through which I found myself in — dreamland. It is difficult to express with what feelings of delight my eyes took in one interesting object after the other. Every step forward revealed something new, that was at once quaint and beautiful. It was not yet noon and, while the August sun was too high to suit my photographic fancy, I made mental notes for use on my prospective camera-rounds. Strolling through the enchanting *Roderstrasse*, with its picturesque *Roderbogen* and *Markusturm*, I came to the market-place. Here I was held captive by the *Rathhaus*, an imposing Gothic pile, its several sections of the XIIIth, XVIth and XVIIth centuries; but, as I afterwards found, accessible only with a lens of extremely wide angle — an accessory with which I had neglected to provide myself. Glancing at the clock-dial on the post-office building, which adjoins the court-house, I was reminded that in ten minutes dinner would be served at



RAMPS ON NEAR ROBERTHOR, ROTHENBURG  
BAMBERG, BAVARIA  
WILLIAM A. FRENCH



the hotel, and, however unworthy the thought, I hastened to keep the appointment, casting envious glances at one of the most beautiful objects in Rothenburg—the Herterich Fountain.

The repast over, I retired to my room, which I had not yet inspected, although I had stipulated that it should look out upon the *Taubergrund*. The view from my window proved to be one of exalting beauty. It was fairyland, indeed, yet wholly different from that which I had but recently admired. Several hundred feet below flowed the Tauber, amid clusters of farm-houses of the picturesque half-timbered sort, its shores fringed with rows of slender poplars and graceful willows. Out among a group of farm-buildings arose the little Cobolzeller Chapel, a thing of exquisite beauty. Fertile orchards and flowering gardens rose in terraced order, intersected, now and then, by graveled foot-paths, one of which, in zigzag fashion, extended upwards as far as the ramparts, terminating at a long flight of stone steps which led to an ancient gateway, one of the exits of the town on this side. The background was formed by the *Doppelbrücke*—an old stone bridge with one row of arches over the other. I sat gazing at this captivating picture till reminded by a busy camerist, half way up the slope, that I, too, should be afiel'd.

Hurrying away, I set up my little Weno camera opposite the hotel-entrance and obtained an excellent view of the *Plönlein*, the prettiest half-timbered house in all Rothenburg, and a veritable gem. Turning the camera a trifle to the right, a beautiful architectural group became possible, the Cobolzeller tower abruptly terminating a short descending street flanked by the *Plönlein* on one side and a row of ancient dwellings on the other. A group of artists busily at work had courteously moved their easels aside for me, for working-room was scarce and there was much passing to and fro. How careful the authorities are to preserve the ancient mediaval flavor is shown by the lantern of antique design which illuminates the little street seen in this picture. It masks an electric

lamp, and all others throughout the town are similarly caged, in order to harmonize with the local color. There were numerous attractive camera-subjects in the vicinity, but they seemed to require morning light. Consequently I turned my attention in the opposite direction, toward the park which is situated on a strongly fortified eminence, a sort of bastion overlooking the Tauber Valley, which, in a beautifully-curving line, encloses the town from the west to the south. The views from here, whether of the walled town or the landscape, are of supreme loveliness. They seem to defy the skill of the pictorialist, who is content to forget his natural proclivity and gaze in a contemplative mood on the beauty spread out before him. At last, however, I instinctively reached for my camera, set it up and exposed on the picturesque line of poplars which fringe the Tauber toward Dettwang. This, however, was not accomplished without difficulty; for in this case, as in others that followed, it was necessary to obtain as much elevation as possible and, with the camera resting on a fully extended five-foot tripod, the finder was of no use. To resort to a chair or a stepladder was a notion not exactly to my liking. I might have prevailed upon the good nature of a passing inhabitant, a man of strong physique, to lift me so that I could examine the reflected image; but my sense of pride rebelled against such a proceeding. It then occurred to me to use my pocket-mirror, which, held at an angle just above the finder, enabled me to accomplish my purpose. A direct sight-finder on the top or side of the camera is sometimes preferable to the small and more convenient form.

The sun was getting low, and long shadows began to creep across the landscape, which circumstance urged me to secure a few exposures in the *Taubergrund* before it was too late. I hurried down the path which I had discerned from my window and, in a very short time, reached the river. What pictorial possibilities are comprehended in this charming locality may be determined from the view of the little chapel which I

GIMPSSES OF ROTENBURG  
A TYPICAL STREET  
AT THE ALTE LINDE

VIEW FROM MY HOTEL  
KLINGENTOR-TURM  
SIEBERS-TURM

WILFRED A. FRENCH  
THE MARTEN-APOTEKE  
DAS PLONLEIN



ROTHENBURG SCENES

A PICTURESQUE NOOK  
VIEW TOWARD THE RATHHAUS



VIEW TOWARD THE RATHHAUS  
HEGERETTER-HUTSCHEN

WILFRED A. FRENCH  
OLD DORMERED HOUSES  
SPITAL-STRASSSE

secured that afternoon. One more exposure, and that was the end of my film-supply. I hastened to inquire at each of the local Kodak stores, but had the same experience as at Nuremberg — an abundance of the standard size of film, viz., 1½-inch flange, but nothing different. Nor was this all. My disappointment was increased by the discovery that amateurs' supplies were confined to films and printing-paper; hence I could not even buy or hire a camera. Hastening to the post-office, I communicated by telephone with Konrad Seitz, the leading photographic supply-dealer in Nuremberg, whom I had called on the day before in my search for Hawkeye film. He very courteously consented to send me at once for a few days' use the best camera he had — a 4 x 5 Kodak, fitted with Bausch & Lomb Plastigmat lens. To this Herr Seitz was to add film for twenty-four exposures. I left the conveniently arranged booth with a feeling of relief, and a high regard for the extremely admirable telephone service, the telephone being owned and operated by the government.

In examining the hotel-register that evening I discovered that many Americans are now including Rothenburg in their itinerary. The names of a large number of Bostonians as guests at this excellent hostelry also surprised me. The following day was all I could wish, although the weather was a little chilly. It had been unusually cold during the latter part of the summer, and I had worn a light overcoat every day since I left the steamer at Boulogne, two weeks before. A Munich humorist declared, later, that this unseasonable weather was due to too much meddling with the North Pole! I noticed many camerists at work, but most of them, excited by the extreme beauty of the place, made random snap-shots. None of these enthusiasts seemed to realize that photographing buildings at relatively close range was different from exposing on persons or objects of no great height. Hence they obtained, with their box or folding-cameras not provided with adjustable lens-fronts, an excess of foreground and only a portion of the chief feature of the picture.

Those that were conscious of this difference tilted their cameras in accordance with the indications in the finder, which procedure, naturally, threw all perpendicular lines out of plumb. Although but little better equipped with the camera Herr Seitz had been kind enough to lend me, I tried to overcome the absence of a rising or sliding front by using my tripod as much as possible, even when the exposure was instantaneous, in order to bring the camera to the level of the eyes. In the case of the old ramparts near the *Roderthor*, which I took that morning, I rested the camera on the wall of the stone bridge which crosses the moat at that point. The elevation was exactly right. What a glorious subject, by the way, this view of the historic fortifications!

The camerist is similarly favored when photographing from the covered gallery of the inner town-wall. He can rest his camera at any point along the railing and, without tilting it, obtain a picture of originality and charm. Under such conditions the ordinary camera is quite satisfactory, also when it is desired to include the entire immediate foreground, either to preserve the appearance of height or of rising ground — as in the case of the *Stoberlein-Thurm* — or to make it a part of the composition, as shown in "A Picturesque Nook." Pictures taken from an elevation, such as the "*Herterich-Brunnen*" and the "*Hegereiter Häuschen*" in the hospital grounds, often gain in natural perspective and artistic effect over those taken at a lower level. I thus obtained a number of views of picturesque, red-tiled old dwellings. A view of the alluring *Markusturm* I failed to secure, although I climbed to the top of a stone fountain and ran the risk of falling into the basin or onto the pavement. I lacked a wide-angle lens or the much-desired adjustable lens-front. I thus missed several golden opportunities. The familiar *Rathaus* doorway, although inaccessible with my outfit, yielded to my persistent efforts, because I pressed into service three of the long, narrow benches used by artists, who assemble here by the score to paint this interesting object. A local photographer



STÖBERLEINS-TURM, ROTHENBURG  
WILFRED A. FRENCH



told me that my view of the *Herterich* or St. George's Fountain had never before been taken, so far as he knew. It can be secured only with the camera held in the hands, for there is no room to place a tripod on the steps that lead to the Historical Museum, the only point of vantage. The other view of the fountain, which dates from the year 1608, with the beauti-

ful oriel window at the left, I was permitted to make from a second-story window of a private domicile, twenty feet away. But enough of experiences of this kind! They are related for the benefit of those who shall have the exquisite joy to visit this inexhaustible field of pictorial treasure, with its interesting past and its quiet, restful character.



AN ANCIENT LANDMARK, ROTHENBURG

WILFRED A. FRENCH

## Plate-Speeds

R. CHILD BAYLEY

A PHOTOGRAPHER told flatly that he cannot distinguish between the speed of two plates one of which is twice as fast as the other is inclined to be nettled by the remark. If he were told that two plates were respectively 200 and 300 H. and D., and yet informed that he could not say from a single exposure of each which was the faster, he might be forgiven for thinking he was being made fun of. And yet, in all seriousness, that is hardly, if at all, an exaggeration of the case.

Let us see for a moment what he would do if he had to compare the two plates.

He might expose them both in the camera under exactly the same conditions, perhaps in a series of strips giving increasing exposure, if he felt very scientific; but probably he would give one plate the exposure he thought correct for it and the other the same exposure, relying upon an examination of the negatives afterwards to tell him which plate was the faster. The negatives finished, he would compare them, and would particularly compare the extent of the shadow-detail in each, and the plate which gave the most detail in the shadows would be regarded as the faster. He might even make some sort of an estimate from a comparison of the two how much faster one was than the other.

We put it to the reader that this is a fair description of what would happen if he had to compare two plates, and we add, further, that in the great majority of cases such a test would be fallacious, and, except by some lucky accident, misleading.

If a photographer uses a few dozen of one plate and then a few dozen of another it is different. It does not follow that because the test generally applied is unreliable there is nothing in having a faster plate, and that a photographer, especially one who did much with very short exposures, would find no difference between a fast plate and a slow one. Slight differ-

ences of speed might be completely hidden by differences in development or manipulation; but if there was a decided difference — say a hundred per cent — the photographer who used a number of one plate and a number of the other would probably detect the difference between them. But then he would draw his conclusion from his work generally, and by his work we mean the quality of his prints, and not by an examination of the detail visible on the negative in the deepest shadows.

Perhaps an analogy will make our meaning clearer, and it is an analogy suggested by a railway journey from London to Coventry. The journey is a very fast one, for the London and Northwestern prides itself on its express-service. Outside Euston station is a long incline up to Chalk Farm — so steep that in the early days of railways the trains were drawn up with a rope, the locomotives being attached only when the train reached the top. Now, however, the powerful engines haul trains up that incline without any assistance, but the regular traveler cannot fail to notice that different engines vary enormously in the speed at which they ascend the incline. Some of the heavy-goods engines, with eight small driving-wheels, could take a passenger-train up it as fast again as one of the lighter passenger-engines with only two or perhaps four large drivers; yet when once that incline is surmounted and the train gets into its stride the passenger-engine would show the heavy-goods engine a clean pair of heels in no time.

What should we think of the man who, asked to pick the engine for the quickest journey down to Coventry, selected the engine which made the best speed up the Euston incline? Yet that is practically what the photographer does who tries to find the fastest plate by looking at the detail in the deepest shadows.

Plate-makers and those who have gone into the matter know that, as far as giving

perceptible detail with extremely short exposures is concerned, some plates far surpass others, although when used in the camera it is found after long experience that those others actually call for less exposure. Plate-manufacture for many years was held back because this fact was not realized. All the early systems of plate-speed testing were based on an estimate of the detail in the deepest shadows, and, although it was recognized that this was unsatisfactory and misleading, it was not until the Hurter and Driffield system was introduced that this was altered. Now it is not our intention to describe the Hurter and Driffield system here; in its details it is essentially a plate-maker's and not a plate-user's matter. But we must point out two fundamental matters in which it differed from those methods which had preceded it. One of these was that for speed-testing it ignored shadow-details entirely. The reading was based on the shortest exposure that would give a useful negative; and if one plate would do this with half the exposure required by another the Hurter and Driffield system gave that first plate as being twice as fast as the second—as from the plate-user's point of view it is, of course, regardless whether the one or the other seemed to give more shadow-detail. To resort once more to the railway analogy: Messrs. Hurter and Driffield picked as their engine for the quickest journey that one which traveled fastest over the great stretch of route of which the journey consisted, and not the one which happened to be the faster over a quite exceptional little bit at the start. It is only for this to be put fairly before the plate-user for him to see at once that for any practical system of speed-testing this is the proper, indeed the only, course to pursue.

The other fundamental difference between the Hurter and Driffield system and its predecessors was that it took "fog" into consideration. To show what this

means, let the photographer hold a negative with very little detail in its shadows up to the light, and while doing so let him place on the far side of the negative a piece of tissue or tracing-paper so that it covers half the plate. He will at once see that he will be able to perceive more detail in the part that is covered by the tissue-paper than in the uncovered part. If the uncovered part looks like an under-exposed negative, the covered part looks more like what a properly-exposed negative usually looks like. A deposit of fog over the whole negative has the same effect as the tissue-paper; and all the earlier systems of speed-testing would make a plate, if slightly fogged, appear to be faster than the same plate not fogged. Messrs. Hurter and Driffield showed the necessity for allowing for fog before estimating the speed at all, and so in this respect, as in the other, brought the measuring of the speed of a plate into line with the requirements of the photographer.

They did other things of the greatest importance to the plate-user, but these two are all that need concern us for the moment. We have merely endeavored to show why it is that the photographer by his ordinary tests cannot estimate plate-speeds, and can only detect differences in speed when these differences are very great. It is always a difficult task to convince any one that he cannot do what he thinks he can do, and we are not so unreasonable as to suppose that we have been able to do so within the limits of a short article. But if we have made him a little distrustful of the results of so-called tests we shall have done quite as much as we expect. It remains for us only to add that nothing herein set down suggests that for work requiring the shortest possible exposures there is no advantage in employing the fastest possible plates. There is, and a great advantage, only we must be sure first that they *are* the fastest possible plates.—*Photography and Focus.*

*Art creates an atmosphere in which the proprieties, the amenities and the virtues unconsciously grow.*—INGERSOLL.

A STUDY IN EXPRESSION

CARINE CADMY



## A Chat About Cats and the Camera

CARINE CADBY

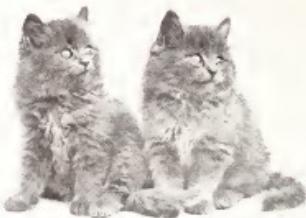
"WHAT fun cat-photography must be!" says the person who knows nothing at all about it. Perhaps it is; but if there is any fun about, the cats must get it all, for it is very certain the photographer does not have a very amusing time. She — for it is usually a poor, unfortunate she — is far too occupied keeping her temper and exercising her patience to have much time to enjoy the humors of the occasion; so let us hope that puss, at least, appreciates the fun of it.

The old hand usually confines himself to trained models, but there are some dauntless souls who seek adventure by experimenting with a cat which is not used to the camera. Fortunate are they if they secure anything at all on their plates; for to stay where she is put is quite against a cat's principles. There are really only three safe positions for the untrained cat: when she is sleeping, when she is eating, and when our patience has oozed out of the tips of our fingers and she has just had a pat!

Cat-lovers tell photographers to appeal to a cat's affection, and that is what one learns to do; but as puss follows Maeterlinck's advice and loves herself so largely and so generously, there is very little af-

fection left for any one else, so it is to her love of herself one has to appeal, and it is only with burnt offerings of flattery and dainties one can persuade her to "sit and look pleasant."

The bother is that to "sit" without the looking "pleasant" is not enough; for cats, like humans, depend almost uncann-

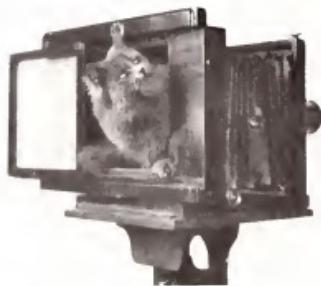


INNOCENT FACES

CARINE CADBY

nily on expression, and a look of temper can spoil the prettiest face. Cat-lovers need have no fear of their pets being treated with undue severity, for the cats are so entirely masters of the situation that it is the poor photographer who is ground under the heel of these tyrants, for if he do not keep his model in a good temper there can be no photographs!

It is such an undignified position, too, to have to wait the pleasure of an impudent little cat; to stand, bulb in hand, breathlessly waiting till it please her to turn her head, or until she condescends to cease to make her toilet! The tail is a great asset to a cat, and if all else fail to harass the poor photographer she can lash it in a maddening way at the most inopportune moment!



ON THE CAMERA

CARINE CADBY



"I JUST WALKED OFF"

CARINE CADBY

Kittens are pleasanter models than grown-up cats, their "cussedness" is not so developed; and though they are always doing what they should n't, their pretty, innocent faces disarm us and, however many plates we may be spoiling, we think, "Never mind, next time we shall succeed." The worst of it is we are generally saying "next time" when there are no more plates left.

Cats of more humble origin, too, are easier to photograph; they are so accommodating and anxious to please. They look in seeming wonder at their more aristocratic sisters, sitting up in haughty indifference, being flattered by those who should know better, and being given the most dainty morsels; it puzzles them, and they rub against the photographer, looking up at him and almost saying, "Why don't you try me? I will do just what you want, and I should be quite satisfied with a saucer of ordinary milk or a stroke from your soft hand." But, unfortunately

for us, little plebeian puss, you are no good as a model; people go so by exteriors in this vain world, and they want pictures only of beautiful cats, and they don't care a bit what very vile characters they may have.

No, there is no hope for the photographer that he may be released from the tyranny of patrician cats who so well know how to use their power. One proud Persian princess who was brought up in a photographic household grasped the situation to such an extent that she would allow herself to be photographed only on a fish-diet. She would unbend so far as to accept cream or meat, but would make photography impossible by at once lying down or, if gently but firmly made to stand, would wear such an expression on her face as would make a picture of her out of the question — unless it could be called "the fiend"!

If one could only understand cat-language what amusing accounts one might hear of their photographic experiences! No wonder some of their receptions sound so lively! One might hear a proud, bad-tempered matron boast, "I let them take the baby, but I looked pretty disagreeable myself." "And I played with the bulb, and dug my claws right into it," a frolicsome youngster might say. "When they were just ready I got up and walked off," from an insolent tom; "And I simply curled up and went to sleep," from a petted beauty.

However, he laughs best who laughs last; and though in the taking of the photograph the cat has the most sport, the photographer scores when it comes to disposing of them, for cat-photographs are very popular. The cult of the cat has now spread abroad, and even in Germany, where puss was, at one time, almost unpopular, cat-photographs are now being sold everywhere. So it is worth while groveling to our tyrants and training them and photographing them, for they can prove the geese that lay the golden egg. Every good cat-photograph we get has its market-value, and if it does not always prove exactly a golden egg, it will, at least, be a fairly solid-silver one.

## EDITORIAL

### The Lens-Industry

HERE can be no question that the lens-industry, both in Europe and America, has greatly exceeded its natural limitations. In a word, it is overdone. We do not refer, however, to the makers of standard types, but to the numerous insignificant and rapidly-multiplying concerns whose products are low in the scale of practical utility, and which, by crass methods of advertising, seek to win the patronage of innocent or inexperienced workers. It is well known that so long as there is a dollar to be made in photographic lenses there will be people ready to handle them, imported lenses in particular. There is room for all, provided high-class efficiency is deemed of greater importance than pecuniary profit.

At a dinner given in Boston, recently, by the Pilgrim Publicity Association, which consists of advertising-men, one of the speakers made a strong appeal for sincerity in advertising. He urged those present to see to it that the articles an interest in which they were creating possessed genuine merit — products in which the reading and buying public could have absolute faith. He suggested the formation of a bureau or jury to which any product, the quality of which was in doubt, could be submitted. The speaker was perfectly justified in making such a plea. He forgot to state, however, that some of the general magazines absolutely guarantee the integrity of the articles and the firms which they advertise. This is true, also, of PHOTO-ERA, which has taken this stand for some time. Hence, certain types of lenses of native, as well as of foreign, manufacture have been refused admission to its advertising-pages.

At the Dresden Photographic Exposition were seen elaborate displays of several European optical firms of varying reputation. Only houses whose instruments possessed high and positive excel-

lences were accorded awards by the jury; and, as this has much weight with the photographic trade the world over, it may not be amiss to mention those optical firms which, by being thus honored, have won an increased measure of the public's confidence. They are as follows: C. P. Goerz, Inc., Berlin; Voigtländer & Sohn, Inc., Brunswick; Emil Busch, Inc., Rathenow; Schulze & Billerbeck, Berlin; Hugo Meyer & Co., Görlitz, and J. H. Dallmeyer, Ltd., London. The superb exhibit of Carl Zeiss, Jena, was not in competition, because the firm served on the jury. Steinheil & Söhne, the distinguished Munich firm — always conservative in its methods — did not exhibit at Dresden; but this does not in the least affect the high reputation of its optical products. For similar reasons, doubtless, other eminent optical firms — Taylor, Taylor & Hobson; R. & J. Beck; Ross, Ltd.; L. Turillon (successor to A. Darlot), and the Bausch & Lomb Optical Company — were not represented at the great Dresden show.

### Motion-Pictures in Colors

PHTOGRAPHY has made such important advance during the last three decades that not a single year has passed without some notable discovery or improvement to be recorded in our art-science. Yet the year 1909, although rich in experimental and research work, fails to show an achievement of marked importance, unless one includes the perfected Kinemacolor, or color-kinematography, the invention of G. Albert Smith, F.R.A.S., of London, England; for both kinematography and color-photography may be very properly regarded as photographic processes. Mr. Smith's remarkable achievement was exhibited for the first time in London, Dec. 9, 1908; next in Paris, the following year, and in New York, Dec. 11, 1909. The last exhibition

was given by Mr. Charles Urban, F.Z.S., of London, financier and manager of the enterprise, Mr. Smith, the inventor, describing the system, which has been patented in every civilized country in the world. All accounts agree that the demonstration was an unqualified success and, certainly, a much-desired advance, in every respect, on the wretched, sight-impairing exhibitions of motion-pictures which form a regular feature of the average vaudeville entertainment and illustrated travel-lecture presented in this country today. The demoralizing and execrable exhibitions in the cheap motion-picture houses are not worthy serious consideration here. Films made and projected by the Smith system are more life-like than those ordinarily seen, on account of the addition of color and the increased number of impressions per second—thirty-two pictures instead of sixteen.

Briefly, when the Kinemacolor camera is in operation a pair of suitable light-filters sift the color-waves of the scene and permit them to be recorded separately and in due proportions. When the film bearing these color-records is subsequently run through a motion-picture machine equipped with somewhat similar filters the color-waves are again set in motion and, as the proportion of colored light then served out to the observers is the same as at the outset, the original scene is reproduced in the colors of nature.

### Extolling Professional Work

**T**HAT the American professional workers deserve the praise accorded them by E. O. Hoppé in his article on "Photographic Portraiture at the Recent Dresden Exposition," which appeared in PHOTO-ERA last summer, is shown by the fact that they are receiving considerable attention from the leading photographic journals of Europe. A recent issue of *Photographische Mitteilungen*, edited by Paul Hanneke, contains several large, excellent half-tones of the work of Eugene R. Hutchinson; also one each of Elias Goldensky, J. C. Strauss, H. H. Pierce and A. F. Bradley. The English photographic press is also enthusiastic in its

reference to the work of American portraitists. Even the organ of the Photo-Secession, *Camera Work*, is moved to acknowledge the high artistic value of the work of Hutchinson and Pierce; but with characteristic arrogance declares that it is from the Secession that these men have drawn their inspiration! Is it possible that there are no other sources of artistic inspiration in the world?

### Sacred Subjects

**A** FEW years ago a series of photographs representing the supreme tragedy in the life of the Savior was displayed in Boston, New York and elsewhere, and provoked considerable adverse criticism. They were not reproductions of paintings, illustrating the work of some creative genius, but photographs from life, the model, in this case, being the originator of the pictures. Unfortunately, there was not the slightest justification for the photographer to even imagine that he could personally simulate the traditional appearance of the Son of Man, and it was but natural that his desecration of a divine theme should bring upon him well-deserved censure and ridicule. It is not known that he has since made further incursions into the field of sacred art.

There have been numerous attempts to picture by means of the camera that eternally beautiful idea—the Madonna and Child; yet in no instance has the artist been able to invest his picture with even a suggestion of spirituality. The depth and purity of religious feeling, that distinguish the sacred pictures of Murillo, Da Vinci and Raphael, are found in the work of no other artists. What hope, then, for the photographer, with his meager, inadequate medium, to express emotion of an eminently exalted character! No sincerely religious person can contemplate with sympathetic interest the efforts of those workers who are trying to emulate a form of creative art which, for adequate interpretation, needs not only a means more flexible and resourceful than a photographic equipment, but—and preëminently—godlike qualities of heart and mind.

# THE CRUCIBLE

A MONTHLY DIGEST OF FACTS FOR PRACTICAL WORKERS

*With Reviews of Foreign Progress and Investigation*

Conducted by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department  
Address all such communications to Phil M. Riley, 383 Boylston Street, Boston

## Cold Weather

FOR the next few months where cold weather prevails due allowance should be made for a change in the action of all chemical solutions that are used in a chilled condition. This applies particularly to developing-solutions. Cold developer will act slower than developer at normal or above normal temperature. We believe this is generally understood, but we mention it at this time of the year lest you forget.

Supposing you expected your developer to work as freely and quickly as it did in hot weather, what would be the natural result? Over-exposure. In other words, instead of giving a normally-exposed print time enough to develop you would consider it under-exposed and increase the amount of exposure on the balance of the prints so that they would develop at the usual speed. This would mean an over-timed batch of prints—prints with increased contrast, blurred detail, and a general muddy appearance. Extreme over-exposure would produce flat, muddy prints.

One way to avoid such a condition is to keep your developer at normal temperature, which is 65 degrees Fahrenheit; but as it is not always convenient to do so, we caution you to beware of over-exposure. One way to determine whether a print has normal exposure regardless of the temperature of the developer is to watch the action of the print in the developer.

Developer at any reasonable temperature will develop a print, and if the print has been normally exposed the image will build up to the proper depth, when development will pause or stop. If development has to be forced beyond the pausing or stopping-point, the print is under-exposed. Give more exposure. If the print reaches the desired depth before the development pauses or stops it is over-exposed. Give less exposure.

One other thing to remember is that ice-cold wash water will not remove the hypo from prints nearly so fast as water at a higher temperature, and if the water is very cold prints should be thoroughly separated and washed very thoroughly.

*British Bulletin.*

## Washing Large Prints

A CORRESPONDENT in *Photography* for Sept. 1900, suggests that the most satisfactory plan for washing large prints is to use a very large tub, let it on a slope, propping up one end

and allow the water from the tap to run into the upper corner, using a piece of bent tubing as a siphon at the lower. This ensures the hypo gravitating to the siphon and so being drawn off as it washes out of the prints, but even then they need to be taken out and drained at intervals, as some is sure to be trapped between the prints. If there are more than one, an arrangement of nets on frames so that each print lies in a little compartment of its own would prevent this.

## Developing Photographs in Daylight

If an ordinary dry-plate, after it has been exposed in the camera, is placed in a bath of potassium iodide the silver bromide is converted into the non-sensitive iodide, and the latter can then be developed in daylight with a suitable developer. It is recommended to carry out the process as follows:

The plate is laid for two minutes in an actinal solution; i. e., four per cent potassium iodide. This can be done in a suitable cloth bag. After this the development may be carried out in subdued daylight, using equal parts of the solutions A and B.

A

Water .....	600 c. c.
Anhydrous sodium sulphite .....	20 grams
Metal .....	1 gram
Hydroquinone .....	8 grams
Potassium bromide .....	40 "

B

A three per cent caustic potash solution.

The plate should, of course, be rinsed before developing. The latter operation takes about five minutes. The fixing is carried out as usual, except that it takes a little longer. The exposure should be ample. The potassium iodide solution may be used over and over, but the developer should be mixed fresh for every plate.—*Chemiker Zeitung.*

## Treatment of Stale Gaslight Papers

ONE seldom buys stale gaslight paper, because dealers are carefully instructed by the manufacturers how best to store their goods; but it frequently happens that paper becomes stale in the hands of an amateur who has placed it where it will absorb moisture. While the precautions required to keep platinum paper are unnecessary, gaslight papers are, nevertheless, somewhat susceptible to dampness, and reasonable care should be exercised. When one is working with good

negatives and a developer known to be in good condition the results should be satisfactory if the paper is right. If it is impossible to get anything but a flat, gray print without contrast, or if development insists upon being unequal, the image coming up in spots at different rates of speed in different parts, and even not developing at all in irregular spots, it is reasonably certain that the paper is stale because of dampness.

In the October issue of *Photo-Notes* R. A. Chrystal describes some very interesting experiments performed with stale papers. His tests indicate that if a package of stale paper is placed before a fire and heated gently for three or four hours the moisture will be driven off when the amount is not too great, so that ordinary development yields a perfect print. When the paper is very old this alone will not produce the desired result and the use of bromide must be resorted to, beginning with about five drops of a 10% solution to three ounces of developer and increasing this quantity as needed. The more bromide used the greater will be the contrast. Mr. Chrystal describes one set of pleasing prints made on paper which required the addition of one-half ounce of bromide solution to four ounces of developer in order to produce a clean print. The results were of a greenish color and showed tremendous contrast, but gave good tones in the sulphide bath.

#### Printing from Wet Negatives

FREQUENTLY a request comes to this office for the best method of securing a print from a newly-developed negative in the quickest possible time. Unquestionably the simplest, safest and most satisfactory way is to dry the glass-side of the negative immediately after fixing, to wipe off the surface-moisture on the film-side with a soft rubber squeegee, and to put the negative into an enlarging-camera where a bromide print may be quickly made any size desired. Should the required exposure be long, an immersion of half a minute in a five per cent solution of formalin will harden the film and prevent its being melted by heat from the lamp. Plates vary in this respect, and some brands may be subjected to considerable heat without damage when no formalin bath is used. With plates of normal density the exposure is not long enough to cause any trouble.

#### Prints for Reproduction

A SMOOTH, high luster may be imparted to P. O. P. prints for reproduction by drying them upon a sheet of plate glass. After thorough washing, dry the prints in the usual way. Then clean the sheet of glass thoroughly with soap and warm water. Dry it, sprinkle with powdered French chalk and polish with an old silk handkerchief. Immerse the prints in cold water for about ten minutes. Place them film-side down upon the glass and pass a squeegee roller over them lightly. If placed to dry in a cool, airy place they should leave the glass without sticking when thoroughly dry.

#### Restoring Bromide Paper

IN *The Amateur Photographer* for October 26 A. H. Gardner gives a simple and inexpensive method of restoring old bromide paper, which would make it seem unnecessary to throw away paper which by ordinary methods would give only a fogged print of unhealthy appearance. Mr. Gardner states that he has held a lighted match in front of a sheet of bromide paper and, by the treatment described, restored it so that a print made upon it left nothing to be desired.

"Mix up a weak bath of potassium permanganate, and acidify this with sulphuric acid. Soak the paper in this for a minute, rinse and transfer to a weak bath of sodium sulphite, leave for another minute, rinse and make the exposure. The image will develop up clear and strong without a trace of fog. In fact, fog seems difficult to get in the developer."

Strength of solutions does not seem to be a matter of great moment, but in order to give the method a definite basis the following is suggested as suitable:

##### First Bath

Potassium permanganate .....	5 grains
Sulphuric acid .....	30 minims
Water .....	10 ounces

##### Second Bath

Sodium sulphite .....	20 grains
Water .....	1 ounce

"It is necessary to mention that this preliminary treatment reduces the speed of the paper, so that a test-exposure will be necessary. A fast bromide paper will require perhaps twice as much exposure, a slower one probably less than twice as much, as the untreated paper. A trial-slip soon determines the best exposure."

#### Printing on Wood

A METHOD of printing photographs upon wood given by *Photographische Welt*, is as follows: First coat the wood, on which the print is to be made, with the following solution:

Gelatine .....	1 part
Water (warm) .....	25 parts

to which is added sufficient zinc-white practically to hide the grain of the wood when coated.

When dry, brush over the surface with a solution of

Kitchen salt .....	1 part
Water .....	10 parts

Dry again, and then, in the dark-room, sensitize with ten per cent silver nitrate solution.

When the wood is weakly printed, the image must be developed with the following

Metol .....	1½ grains
Acetic acid .....	30 minims
Water .....	3½ ounces

As soon as the image has attained the desired density, it must be rinsed and fixed.



FEATHERED FRIENDS  
FIRST PRIZE - VACATION SCENES COMPETITION  
G. TURNER ROW



# THE ROUND ROBIN GUILD

*An Association of Amateur Photographers*

Conducted by ELIZABETH FLINT WADE

This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography, although advanced camerists are just as welcome and many are numbered among its members. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free and may be obtained by sending name and address to PHOTO-ERA. The Round Robin Guild, 383 Boylston Street, Boston.

Send a stamp for complete prospectus.

## Post-Office Regulations Pertaining to Photographs

PHOTOGRAPHS come under the head of third-class matter, and the rate of postage is one cent for every two ounces or fraction thereof, which must be fully prepaid or the package is held for postage. On each photograph may be printed or written the name, occupation and address of the sender; the title of the picture, and, in the case of a competition, the word "competition" and the month in which it occurs may be added. All other writing aside from these subjects the picture to letter-postage.

Many of the photographs sent in to the competition bear much data, such as the plate, exposure, developer, paper, etc., etc., which were used in the making of the picture. In case the package was opened at the post-office it would be held and letter-postage collected before the photographs could be sent to their destination.

The editor of the Guild took a number of photographs to the office and asked the postmaster about the matter which was written on the backs, and if such pictures would be allowed to go as third-class. The answer was a decided "No!" and several examples which had been held for letter-postage were exhibited. In addition to the matter already designated, one may add a number, so that if your photographs are numbered and you wish to refer to them by number in your letter of advice it is easy to locate the particular photograph mentioned.

In sending prints use straw-board to protect the mount. The cellular board is the best for sending photographs through the mail, provided two pieces are used with the corrugations running at right angles. This greatly stiffens the package and prevents bending.

It is a good idea for every person to own a copy of the postal rules and regulations to consult when in doubt.

## A Book for Guilders

WE are grateful to every intelligent reader of PHOTO-ERA for suggestions, which are acted upon whenever they are feasible.

A Guilder suggests that the portraits of the members of the Guild be collected and printed in book-form, which the members would buy. The idea is an excellent one, but, as considerable ex-

pense is attached to such an undertaking, we should like to hear the opinion of other Guilders on this subject. The idea might be extended by including in such a publication a number of reproductions of some of the notable pictures that received prizes in this department. The usual way is first to get a requisite number of subscribers to cover the expense of publication.

## Cleaning Platinum Prints

THE rough surface platinum prints get soiled easily and the ordinary method of washing which answers for a smooth-surface paper does not seem to free them from the dirt which has settled in the depressions of the paper, and of course the paper will not bear rough handling. To clean them thoroughly, make a flour paste, boiling it well to make it clear, and straining it to free it from lumps. Spread the surface of the print evenly with this paste, then turn on a gentle stream of water and wash away the paste. As it leaves the print it will carry away the dirt with it. If the print seems dull after drying, brighten it with a coat of artists' fixatif, which will not give a gloss but simply bring out the detail, which seems to have sunken into the paper.

## How to Judge a Negative

"DEAR me!" said a beginner to me recently, "I do think photography is the hardest thing to learn, you have to know so many things all at once. Otherwise you are liable to become bankrupt through spoiling such quantities of material before you can get a really satisfactory picture."

It is true that at the very outset of one's photographic career the way is beset by familiar terms used in a very unfamiliar way — terms which are especially bewildering when applied to a negative. The beginner is told that his negative is hard or soft; flat or well modeled; sharp or fuzzy; strong or weak, etc., etc.; and is at a loss to understand the meaning of the adjectives as applied to his photographic plate.

The beginner is not willing to make haste slowly. The making of a negative is the easiest thing in the world, and one fondly believes that the rest of the photographic knowledge is acquired just as easily. Hence the spoiling of material and the great financial gains to manufacturers.

We want the beginners of our Guild to start right; and the first thing, almost, which one should learn is the explanation of the terms used in describing a negative. These simple definitions it is hoped and expected will enable the beginner to avoid many mistakes and errors.

**HIGH-LIGHTS, SHADOWS AND HALF-TONES.** The high-lights in a negative are those parts of the film which are the most opaque, and which in the print appear as white places or very light tones. The shadows are those parts of the negative which are the most transparent, and which in the finished print are the darkest parts. When the glass is very transparent the shadows are merely black patches in the print. The half-tones, or, as they are also called, the middle-tones, are those parts of the negative which are neither very opaque nor very transparent, and in the print are the shades between the lightest parts and the darkest parts of the picture — or, to use the technical terms, the shades between the high-lights and the shadows.

**DETAIL AND GRADATION.** Detail in a negative means that the objects on the plate are clear and distinct, and that each special portion of the object has its own proportion of light and shadow. For instance, if you were photographing a decorated vase and the decoration showed up clear and distinct then the negative would be said to have good detail. If, on the contrary, only the shape of the vase appeared on the plate and the decoration was absent, or very indistinct, then the negative would be said to be lacking in detail. Gradation means the blending of the different degrees of opaqueness in a negative so that in the print the high-lights seem to melt away into the shadows gradually, without abruptness. They soften gradually without any marked difference or steps between. This blending of the lights and shadows by the intermediate half-tones is what makes the beauty of a picture.

**CONTRAST AND FLATNESS.** A negative is said to have good contrast when the difference between the lights and shadows is harmonious. If a negative has a great difference between the high-lights and the shadows then it is said to have too strong contrasts, and the print will show shabbily high-lights without detail, and the shadows will be black and dense, and the half-tones will be weak, or almost lacking. Flatness in a negative means that the film of the plate is of an almost uniform density, and the print made from it would have muddily high-lights and the shadows be lacking in depth and strength. Flatness is usually due to over-exposure of the plate.

**GOOD MODELING.** Modeling in a negative means that the objects appear as they do to the eye in their natural relief, so that they seem to project or stand out from their surroundings. A figure study is said to have good modeling when it shows the shaping of the features, the modelling of the chin and cheek, the arm, etc. In landscape, it means that the trunks of trees, for instance, look round; the hills show as hills, instead of simply as shapes. Of course this applies to hills near at hand and not those on the

distant horizon. Other objects in the picture, too, convey to the eye their forms as well as their outlines; in other words, each seems to stand out in its form as seen by the eye itself, and as if, should one choose, he might walk around the objects thus depicted.

**HARD AND SOFT NEGATIVES.** A hard negative is one in which the outlines are very abrupt and have no gradation of shades between the high-lights and the shadows. If it is of a figure-study the figure appears to be imbedded in its surroundings; that is, it does not stand out distinctly from them. The print made from such a negative will give one an unpleasant feeling to look at it, and a desire to do something to separate the subject from the background and from the surroundings. A soft negative is one that has no strong, sharp high-lights nor black shadows, but will be full of beautiful half-tones which blend into each other, producing a pleasing and harmonious picture.

**INTENSE AND THIN NEGATIVES.** An intense negative is one in which the film is very opaque, allowing the light to pass through it slowly in making a print. A thin negative is one where the film is translucent and allows the light to pass through easily. Neither a very intense film nor a very thin film is a good printing negative. In the intense film the light acts so slowly that the print acquires a hard look, while in the thin negative the light acts so quickly that the print is of no depth, and loses most of its good qualities in the toning or developing.

**SHARP AND FUZZY NEGATIVES.** A sharp negative is one in which all objects are seen clearly and distinctly, with detail well brought out. A sharp negative is made by bringing the objects photographed into a distinct focus, then using a small stop to secure fine detail. A fuzzy negative is one in which the objects appear blurred or indistinct, and without good modeling. It is caused by carelessness in focusing so that the points of light do not concentrate, but overlap. A sharp negative is permissible only when the objects to be photographed are to be used for some special illustration, such as commercial work. A very pleasing negative is made by first focusing sharply on the scene, then turning the lens either out or in a trifle so as to soften the outlines without rendering them indistinct.

**FOG AND HALATION.** A fogged negative is one which seems to have a sort of veil or hazy covering over the film. Fog in a negative may be caused either by light or by impurities in the chemicals used in developing. In the former case it is called "light fog" and in the second "chemical fog." Light fog, due to the exposure of the plate to actinic light, may occur before the plate was placed in the camera, or it may occur when removing the plate from the holder. If the plate is not properly shielded and the white or actinic light reaches it a fogged plate is the result. Sometimes a plate is not fogged all over uniformly but may show streaks of fog. This may be caused by a ray of sunshine striking the lens obliquely during the exposure, or it may be from a leak in the bellows of the camera.



WESTWARD

SECOND PRIZE — VACATION-SCENES COMPETITION

RICHARD PERTUCH

A SHADY LANDING

THIRD PRIZE — VACATION-SCENES COMPETITION

F. F. SORNBERGER



When fog occurs in streaks or patches it is called "local fog." "Halation" is a term used for the fogging of a plate when taking a picture of an interior in which a window is included in the angle of the lens. It means the spreading of light beyond its proper bounds, and is really local fog. Halation also occurs when trees are photographed against a sunny sky, or in night pictures when lights come within the angle of the lens. In taking pictures of interiors it is wiser to use the plate sensitized for this special work, called "the no-halation plate." Exposures on these plates require twice the length of time of the ordinary plates; but one avoids the halation and the after-manipulation of the negative in order to get rid of it. This is a good time to remember the proverb, "An ounce of prevention—"

With this list of definitions in hand it would be a fine object-lesson for the beginner to study some of his negatives and see which terms or term most fitly describes them.

#### A Developer for Over-Exposure

A FINE developer which will give contrast and make a good-printing negative on an over-exposed plate is made by using edinol for the developing-agent. Dissolve the chemicals in ten ounces of water in the following order:

Sodium sulphite, dry .....	160 grains
Edinol .....	35 "
Potassium bromide .....	7 "
Potassium carbonate .....	80 "

If a plate is known to be over-exposed, then develop in this solution, using it full strength. If developing in normal developer and the image comes up quickly, showing that the plate has been over-exposed, transfer to running water, then to this developer. This developer keeps well in solution, and unless a large number of plates are developed at one time it may be bottled and used again. The image produced by edinol is a good black, and the printing qualities of the plate are excellent. It resembles metol in regard to the rapidity with which it brings out the image, but, unlike metol, when used alone it does not give a thin negative, but one with good density and contrast.

Edinol is also an excellent developer for delicate negatives taken of drawings, pen-and-ink sketches, etc., as it gives negatives with clearness of detail and fine printing-density. For such negatives make up a developer after the following formula:

Sodium sulphite, dry .....	320 grains
Bafford .....	50 "
Potassium bromide .....	35 "
Potassium carbonate .....	400 "

For developing to be used full strength. It is one of the best developing agents for this kind of negatives. It gives the contrast which is so wanted in a reproduction of line-drawings; and if greater intensity is desired, hydroquinone can be added to the developer.

## The Round Robin Guild Monthly Competitions

Closing the last day of every month.

Address all prints for competition to PHOTO-ERA, The Round Robin Guild Competition, 383 Boylston Street, Boston.

#### Prizes

First Prize: Value \$10.00.

Second Prize: Value \$5.00.

Third Prize: Value \$2.50.

Honorable Mention: Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention.

Prizes may be chosen by the winner, and will be awarded in books, magazines, enlargements, mounts, photographic materials or any article of a photographic or art nature which can be bought for the amount of the prize won.

#### Rules

1. These competitions are free and open to all photographers, whether or not subscribers to PHOTO-ERA.

2. As many prints as desired, in any medium except blue-print, may be entered, but they must represent the unaided work of the competitor, and must be artistically mounted.

3. The right is reserved to withhold from the competitions all prints not up to the PHOTO-ERA standard.

4. A package of prints will not be considered eligible unless accompanied by return postage at the rate of one cent for each two ounces or fraction.

5. Each print entered must bear the maker's name, address, Guild number, the title of the picture and the name of the competition for which it is intended, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.

6. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA. If suitable, they will be reproduced, full credit in each case being given to the maker.

#### Subjects for Competition

January — "My Favorite Photograph." Closes February 28.

February — "Decorative Treatment of Trees." Closes March 31.

March — "The Seasons." Closes April 30.

April — "Downhill Perspective." Closes May 31.

May — "Sunlight and Shadow." Closes June 30.

June — "Landscapes with Figures." Closes July 31.

July — "Marines." Closes August 31.

August — "In the Country." Closes September 30.

## Awards — Vacation-Scenes

*First Prize:* O. Zernickow.

*Second Prize:* Richard Pertuch.

*Third Prize:* F. F. Sornberger.

*Honorable Mention:* Paul Lewis Anderson, Grace E. Mounts.

Meritorious work was submitted by C. W. Clarke, W. L. Crouch, T. W. Kilmer, Jessie B. Dixon, Lloyd G. Kerr, Harry C. Gibson, Mabel W. Sawyer, John J. Reilly, Flora von Coelln, F. E. Bronson.

## The Forthcoming Competition

FROM time to time pictures are published in PHOTO-ERA which show specially decorative treatment of trees. No special mention is made of their decorative quality, but those of our Guild members who intend to compete in our February' contest, closing March 31, would find in the back numbers of their magazines excellent object-lessons of this special subject. In 1905 one of the subjects for the monthly competitions was "Trees," and in the December number of that year the prize-winning pictures were published. In the July and November numbers for 1907 are some decorative tree-pictures, and in April, 1906, there is a specially fine picture showing unusual effect in the photographing and printing of a tree. It is the picture of an apple-tree, and the picture is divided into three panels, after the manner of the picture on the cover of the December issue of PHOTO-ERA, the central panel being twice as wide as the side-panels. These numbers are well worth looking up for suggestions on the decorative qualities of trees.

There is no object in nature which has such decorative effect, nor more decorative qualities, than a tree. Each species has a distinctive character which separates it from all other species. There is variety enough to please the most exacting, from the stiff poplar, standing slim and straight, to the swaying, drooping willow, whose branches swing and sway with every breeze that flits across the land. And there is no time nor season of the year when the tree is not interesting, whether its bare branches are outlined against the wintry sky, whether it is veiled in its misty garment of spring leaves, clothed in its summer dress of green, or gorgeously apparelled in its autumn foliage.

Each species stands for some special type. Does not the oak ever exemplify strength and endurance? And it is the oak alone of all the trees that stands with its branches stretched out at almost right angles from the trunk, not only resisting gravity, but, as Dr. Holmes puts it, "actually defying it." The sentinel-like poplar reminds one of some faithful watcher loyal to his post; the pretty birch, of a sprightly, winsome maiden; the elm, of some benevolent patriarch.

For decorative effects the tree should be photographed by itself, and with nothing to distract the eye from the tree itself. Then the focus must not be too sharp, the object being to get an impression of lines and curves rather than of the

texture of the tree. The poplar is a favorite species for decorative trees in a landscape; a line of them stretched along the horizon of a landscape is always interesting. Trees in winter, bent and blown by the winds, offer very good subjects for the skillful amateur who is looking for something unusual.

A March day with the wind sweeping over the landscape in long gusts, bending bush and tree in graceful curves, is the time to look for wind-blown trees and photograph them. While the physical discomfort may be of a rather strenuous nature, still the resultant picture will repay the amateur for enduring it. If one uses a tripod he will do well to weight it with a stone tied to a string and the string attached to the tripod-head and just touching the ground.

The medium-sized tree rather than the monarch of the forest should be chosen for decorative treatment. The young saplings with their slender trunks and willowy branches repay searching out and using for subjects for long, slender panels. While the amateur is not debarred from sending in prints of trees the negatives of which have been made in the summer, it is specially hoped that studies will be made of the tree in winter, which seems to be at its very best for real decorative photography.

## BEGINNER'S COLUMN

### Quarterly Contests for Beginners

In these contests all Guild members are eligible EXCEPT those who have received Guild prizes in the past. Aside from this restriction, the rules which govern the monthly competitions will be in force here and the prizes will be payable in the same manner.

All prints submitted, except prize-winners, will be returned if postage is sent.

#### PRIZES

*First Prize:* Value \$10.00.

*Second Prize:* Value \$5.00.

*Third Prize:* Value \$2.50.

*Honorable Mention:* Those whose work is worthy will be given Honorable Mention.

#### Subjects for Competition

SNOW-PICTURES — CLOSES APRIL 15, 1910

Here is presented a very wide field, so that nearly every camerist may enter one print, at least. The pictures may be snow-covered landscapes in all conditions of weather, park-scenes, outdoor sports on the snow or ice and a variety of other subjects, including human life or not.

SOUVENIR-PHOTOGRAPHS — CLOSES JULY 15, 1910

It is intended that this competition shall include photographs made as souvenirs while away from home, whether in one's own country or abroad, or only on a short vacation-trip. Thus they will portray objects of historic or other interest, and incidents worthy to be recorded. Figures may or may not be included.

## Answers to Correspondents

Readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to ELIZABETH FRANK WADE, 321 Hudson Street, Buffalo, N.Y. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.

C. M. S.—**Paper for Gum-Prints.** You will find the Michallet paper an excellent one for gum-prints, also the Allonge. Either of these papers takes the solution well and produces very satisfactory prints. The rough papers are suitable for negatives with broad masses of light and shade, but the rough paper needs to be sized before applying the gum, because the depressions of the paper do not take the mixture evenly unless sized.

M. RODIN.—**Protecting the Fingers.** There is a preparation on the market called Nostane, which is a sort of paste and when applied to the hands or fingers prevents the staining or poisoning of the skin when using chemicals. Metal is poisonous to some people, and you should either protect your fingers with rubber tips when using it or else use the paste above recommended.

M. I. ORNT.—**The Effect of Wind.** No, the blowing of the skirt in the wind adds to interest or detracts from the figure. The effect produced is that of a breezy day, and wind-blown garments convey that impression. A membership-card has been sent you.

JOSEPH BAYLEY.—The prints which you sent for criticism are received and a detailed opinion of them is sent by mail. Your work shows care and much artistic talent.

E. L. COCHRANE.—**Removing Film from Plates.** The cheapest and most efficient way of removing film from spoiled plates is to subject them to a bath of hot suds. If the films are old soak them for a while in warm water, then turn hot suds over them and the film will slough off very readily. The plates, after being washed, should be polished with French chalk and a piece of charcoal.

GEORGIA SCHERF.—**Contest-Prints.** No, the pictures sent in for the competitions need not be enlargements. Many enlargements are good, but the contact-prints stand as good a chance provided the plate is not too small. Sometimes the tiny Johns have wonderfully clear detail and exceptionally good qualities. In such cases the enlargement will bring out all these points and emphasize them, whereas the tiny prints give them only in miniature.

FRANCIS D. COOPER.—**Double Printing.** In addition to the questions will be given for double printing, telling how clouds are printed over the hills of a landscape. The description is given on page 26 to be included in answers to

D. S. C.—**Staining Glass Red.** There is a preparation on the market which will answer the purpose of staining plain glass a ruby color. It is called Rubaline, and is simply painted over the glass. It gives a perfect protection from actinic rays and is very convenient for coating the dark-room windows or panes of glass to be used in the dark-lantern.

H. I. ORNE.—**Choosing a Paper.** For negatives which have broad masses of light and shade you will find the rough paper makes the more artistic picture. For negatives with fine detail use a smooth-surface paper. Both gas-light and printing-out papers are made in different grades and textures, so no matter which process you use you will have a wide choice of paper.

EMILY G.—**Intensification.** Yes, you can buy intensifiers already prepared for use. There is on the market a recent intensifier which is in one solution, easy to use, and gives very excellent results. One must remember that intensification does not make a good negative, but it does improve certain negatives which have either not been sufficiently developed, or perhaps a little under-timed in exposure. Its main help is to strengthen the printing qualities of a negative.

C. S. DAWS.—**Amidol.** This agent does not keep well in solution. It should be mixed two or three hours before needed, but never mixed and kept indefinitely, because in the latter case one can never be sure of good results. A very good formula which you would like perhaps better than the one you are using is made by dissolving in ten ounces of water twenty-five grains of amidol, 325 grains of sodium sulphite and five grains of potassium bromide. Your bromide prints developed with this developer would have much clearer whites.

S. A. O.—**Alcohol.** Methyl alcohol is wood alcohol. Methylated spirit is a mixture of ethyl alcohol with ten per cent of methyl alcohol. The addition of the methyl or wood alcohol is made so that it may be sold free from duty; for it is poisonous and unfit to drink.

GEORGE TREAT.—**Retouching-Fluid.** You can make a good retouching-fluid by mixing thirty grains of powdered rosin with one ounce of oil of turpentine. Apply to the places to be retouched by dipping a wad of absorbent cotton in the liquid and dabbing the negative gently. Let the plate stand for half a day to dry. If not much retouching is to be done to the plate use powdered pumice-stone to rub over the places. This will roughen the film enough to make a good "tooth" for the pencil.

SELEMA KEENE.—**Hardening Negatives.** You can harden the film of negatives by using formalin in the proportion of sixteen grains of formalin to each ounce of water. The negative should remain in this solution for five or ten minutes, when it may be dried by heat without injury to the film.

B. N. F.—**Ferricyanide and Ferrocyanide.** Potassium ferricyanide is red prussiate of potash. It comes in clear ruby-red

crystals. If the crystals are dull-looking rinse in clear water and dry before using them in photographic solutions and before weighing them. Potassium ferricyanide is used for the reduction of negatives, while the ferrocyanide of potassium (which is yellow prussiate of potash) is sometimes used as an accelerator in developers. You seem to have the two confounded.

ANNA A. L.—**Double Printing.** Double printing does not mean printing from the same negative, but making a picture by printing from two or more negatives on the same sheet of paper. For instance, if one had a white sky and wished to make a print with clouds in the sky he would print first from the landscape and then from the cloud-negative, making the first print while the second was being made.

E. H. G.—**Hypo-Stains.** The staining of your negative film from imperfect fixing is very hard to remove. You might try a diluted solution of potassium sulphide and then wash the plate well, bleach it and re-develop it. In preparing a fixing-bath have it strong enough in hypo to ensure a perfect clearing of the salts of silver which have not been used. An ounce of hypo to four of water is the regulation formula, but one may use stronger solutions without injuring the plate. It does not pay to save the hypo bath unless it is going to be used the very next day. It becomes discolored and is liable to stain the film.

HOWARD R.—**Iridescent Stains.** To remove the iridescent stain from your negatives, rub with alcohol using a piece of soft, clean chamois. Farmer's reducer will also remove the stain; but as it also reduces the density of the film, it will not do to prolong its action only just long enough to take off the stain. Then wash well to remove all traces of the reducer.

F. M.—**Preparing for an Ocean Voyage.** In an early number of PHOTO-ERA will be given an article describing in detail the necessary precautions to take when getting photographic materials ready for an ocean voyage. In addition there will also be a list of places given where permits are required before being allowed to take photographs.

R. E.—**Protecting the Fingers.** To prevent staining of the fingers in printing and developing gaslight prints use rubber finger-tips or else get a small box of No-stane, which may be rubbed on the hands before beginning developing, prevents staining and washes off readily. A very convenient article for use in developing plates is a thimble made with a sharp prong at one side and extending about an inch beyond the top of the thimble. This point is slipped under the plate, and one can thus raise the plate from the developer without putting the fingers in the solution.

BERTHA B.—**Platinum Pointers.** Doubtless your platinum paper absorbed moisture and that was the cause of your poor prints. Platinum paper will keep a long time if it is properly protected from moisture. Put a piece of calcium chloride in the can and seal the

cover with the strip of rubber tape which came on the can originally. The calcium chloride absorbs moisture and keeps the paper dry. Your prints developed with mercuric chloride are of a very pleasing color. If such prints are carefully finished—that is, put through three or four changes of the muriatic acid bath—the color will not fade. If not properly cleared and washed the color sometimes changes. It is not as stable as the regular sepia or gray platinum print.

F. D. T.—**Developing P. O. P.** Yes, you can develop printing-out papers instead of toning them. Place the print for five minutes, or perhaps a little longer, in a ten per cent solution of bromide of potassium; then develop in any good developing-solution. Hydroquinone developer is specially good for developing printing-out paper. In these dark days one will find this method of finishing prints on printing-out paper very efficacious, for the reason that a faint image will develop up into a strong picture.

L. C. F.—**Red Bromide Prints.** Toning with copper sulphate will give a warm red tone to your bromide prints. A good formula is made as follows: water, ten ounces; citrate of potassium, one ounce; copper sulphate, fifty-five grains; ferricyanide of potassium, 545 grains. The toning proceeds from black to warm chocolate, then to warm red, and then to deeper red.

### Print-Criticism

Address all prints for criticism, enclosing return postage at the rate of one cent for each two ounces or fraction thereof, to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. Prints must bear the maker's name and address, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.

"ON THE OCONEE," J. P. C.—This is a very interesting picture taken on a Southern river, the Ocnee. The trees are draped in moss, which gives them a soft, misty look which is very pleasing. The negative is of excellent technical quality, has had the correct exposure, and was carried just to the right point in developing to bring out a delicate print full of detail. The rendering of the water is very good, for there are no strong high-lights, only soft grays and the deepening tones of the slow ripples. The point of view is perhaps not so well chosen as it might have been, owing to the fact that there is no object in the immediate foreground to give the effect of distance. The sky would also greatly aid the composition if, instead of being blank, a few light clouds were printed into it—just the suggestion of clouds, perhaps. This negative ought to make a good enlargement.

"WINTERY WEATHER," F. H.—This is a realistic picture of winter in the Northwest. It is not,

however, either so good in composition or in treatment as former pictures sent in by this member of our Guild. Some of the prints sent have been not only very interesting as showing a phase of this part of the country, but have had a great deal of artistic merit. This picture shows in the foreground an expanse of snow, which, however, has good texture instead of being a chalky-looking plain. In the middle-distance are the trees, and beyond, seen through the branches, is a mountain, snow-covered and sparsely wooded. The criticism of this picture is that it is lacking in balance, the snowy foreground taking up nearly half of the picture, and the rest of the picture being in shadows and in half-tones. The print is made on rough paper, which brings out the snow better than any other printing-medium.

"SUNDAY MORNING AT THE FARM," W. D.—This is a picture of a very attractive farmhouse. A vine is clambering over the porch and a great tree spreads its branches over a goodly portion of the yard, and over the house as well. Two men and a woman are seen in the picture, and two or three hens are looking for stray crumbs. The picture is very well taken indeed. Detail is well brought out, the point of view is chosen with care, and the contrasts are soft and pleasing. In fact, it is a very pretty picture of sylvan life, but it has one great fault. All three of the figures

are staring straight at the camera. This seems such a pity, for it spoils what would otherwise be a picture above the ordinary; for the figures, instead of being too much in evidence, are just the distance from the camera to convey the sense of right proportion. The hens are really more interesting than the figures, for they are pursuing their pleasant occupation with no thought or hint of a lens or a camera.

"TWILIGHT," B. D. F.—This is a waterscape, and shows a two-masted vessel making its way across a smooth and placid river. In the foreground is a glimpse of the wharf from which the craft has set sail, the water-worn piles with their shadows in the water giving just the right touch to emphasize the perspective. The farther bank of the river is just visible, and one distinguishes faint outlines of towers and lower buildings. This picture is specially good because the idea of twilight is so well exemplified. There is a haze and mistiness over the water, half concealing, half revealing, the objects. The only criticism one could make in regard to this picture is that the position of the vessel is not just what an artist would choose, though with the camera one cannot control this, only in a measure. The stern of the craft is toward the spectator, and only a little of the side is visible. A little more of the side of the vessel would have made this a picture well worth high commendation.

## Plate-Speeds for Exposure-Guide on Opposite Page

### Class 1/2

Lumière Sigma	Cramer Banner X
Lumière Non-Halation Sigma	Cramer Banner X Non-Halation
<b>Class 1</b>	
Anseo Film, N. C. and Vidil	Eastman Extra Rapid
Cramer Crown	Hammer Extra Fast
Cramer Crown Non-Halation	Hammer Extra Fast Ortho
Cramer Instantaneous Iso	Hammer Non-Halation
Cramer Inst. Iso Non-Halation	Hammer Non-Halation Ortho
Cramer Isopon	Seed 26x
Cramer Trichromatic	Seed C. Ortho
Defender King	Seed L. Ortho
Defender Ortho Inst.	Seed Non-Halation
Eastman N. C. Film	Seed Non-Halation Ortho
Ensign Film	Standard Extra
Hammer Special Extra Fast	Standard Orthoronion
Imperial Special Sensitive	Wellington Speedy
Imperial Orthochrome Special Sensitive	
Kodloid	Lumière Ortho A
Magnet	Lumière Ortho B
Premo Film Pack	
Seed Gill Edge 27	
Standard Imperial Portrait	Cramer Medium Iso
Standard Polyochrome	Cramer Medium Iso Non-Halation
Stanley Regular	Wellington Iso Speedy
Wellington Extra Speedy	

### Class 1 1/4

Cramer Banner X	
Cramer Banner X Non-Halation	
<b>Class 1 1/4</b>	
Eastman Extra Rapid	
Hammer Extra Fast	
Hammer Extra Fast Ortho	
Hammer Non-Halation	
Hammer Non-Halation Ortho	
Seed 26x	
Seed C. Ortho	
Seed L. Ortho	
Seed Non-Halation	
Seed Non-Halation Ortho	
Standard Extra	
Standard Orthoronion	
Wellington Speedy	
Lumière Ortho A	
Lumière Ortho B	
Cramer Medium Iso	
Cramer Medium Iso Non-Halation	
Wellington Iso Speedy	
Cramer Medium Iso	
Cramer Medium Iso Non-Halation	
Wellington Iso Speedy	

### Class 2 1/2

Cramer Anchor	
Hammer Fast	
Seed 23	
<b>Class 4</b>	
Lumière Panchromatic	
Stanley Commercial	
<b>Class 5</b>	
Cramer Commercial	
Defender Non-Halation Plain	
Defender Non-Halation Ortho	
Defender Ortho Slow	
Hammer Slow	
Hammer Slow Ortho	
<b>Class 8</b>	
Cramer Slow Iso	
Cramer Slow Iso Non-Halation	
<b>Class 12</b>	
Defender Queen	
Seed Process	
<b>Class 100</b>	
Lumière Autochrome	
Lumière Red Label Slow	

# The Round Robin Guild Exposure-Guide For February

COMPILED BY PHIL M. RILEY

UNDER this caption a brief table of exposures will be given in each issue for the guidance of Guild members during the following month. While the figures are indicative only, they will be found approximately accurate for the assumed conditions they have been applied to. If the exposure-times given are not considered imperative, but as suggestions, possibly to be varied slightly at the discretion of the worker, these tables will prove of great benefit to all who use them.

**The table below gives the exposures required by the different subjects and plates mentioned during the month of February on any fine day at noon, when the sun is shining brightly and the lens is working at f/8, or U. S. No. 4.**

Double the exposure if the sun is obscured but the light is fairly bright, or if f/11, U. S. No. 8, is used; also between 9 and 10 A.M. and 2 and 3 P.M. Treble it when the light is rather dull. Increase it four times when there are heavy clouds and very dull light, or if f/16, U. S. No. 16, is used. For f/5.6, U. S. No. 2, give half. At 11 A.M. and 1 P.M. increase the exposure one-fourth. From 10 to 11 A.M. and 1 to 2 P.M. increase it one-half. From 8 to 9 A.M. and 3 to 4 P.M. increase it five times.

SUBJECTS	PLATES (List on Opposite Page)											
	Class $\frac{1}{2}$	Class 1	Class $\frac{1}{4}$	Class $\frac{1}{3}$	Class 2	Class $\frac{2}{3}$	Class 4	Class 5	Class 6	Class 8	Class 12	Class 100
Studies of sky and fleecy clouds; open snow-scenes without foreground ....	1/800	1/400	1/320	1/256	1/200	1/160	1/100	1/80	1/64	1/50	1/32	1/4
Open views of sea and sky; very distant landscapes; studies of rather heavy clouds; winter-scenes having very light snow-covered foregrounds ....	1/400	1/200	1/160	1/128	1/100	1/80	1/50	1/40	1/32	1/25	1/16	1/2
Open landscapes without foreground; open beach, harbor and shipping-scenes; yachts under sail; very light-colored objects; studies of dark clouds; average snow-scenes .....	1/200	1/100	1/80	1/64	1/50	1/40	1/25	1/20	1/16	1/12	1/8	1
Average landscapes with light foreground; river-scenes; figure-studies in the open; light-colored buildings and monuments; wet street-scenes; snow-scenes with excessive contrast .....	1/100	1/50	1/40	1/32	1/25	1/20	1/12	1/10	1/8	1/6	1/4	2
Landscapes with medium foreground; landscapes in fog or mist; buildings showing both sunny and shady sides; well-lighted street-scenes; persons, animals and moving-objects at least thirty feet away .....	1/50	1/25	1/20	1/16	1/12	1/10	1/6	1/5	1/4	1/3	1/2	4
Landscapes with heavy foreground; buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red brick buildings and other dark objects; groups outdoors .....	1/25	1/12	1/10	1/8	1/6	1/5	1/3	2/5	1/2	2/3	1	8
Portraits outdoors in the shade; very dark near objects .....	1/12	1/6	1/5	1/4	1/3	2/5	2/3	4/5	1	1 1/3	2	16
Badly-lighted river-banks, ravines, glades and under the trees .....	1/6	1/3	2/5	1/2	2/3	4/5	1 1/3	1 3/5	2	2 2/3	4	32
Average indoor portraits in well-lighted room, light surroundings, big window and white reflector .....	1/2	1	1 1/5	1 1/2	2	2 2/5	4	4 4/5	6	8	12	96

In order to make the exposures as accurate as possible after the final multiplications, all fractions accompanying whole numbers have been allowed to remain in this table, except when the whole numbers were so large that fractions might be disregarded as negligible. In such cases approximate figures have been given. Shutters will not always give the exact exposure required, but the nearest speed may be used if it is approximately correct. When the nearest speed is too short open the diaphragm a little; when too long, close it a little. Let the exposure be a little too long rather than too short, and the more contrast there is in the subject the more it may be over-timed. Over-exposure, unless excessive, can be controlled in development, but under-exposure will not give a satisfactory negative.

## OUR ILLUSTRATIONS

A SEVERE blizzard just after Christmas gave us the opportunity to present to our readers the uniquely-beautiful night picture on the cover of this issue, representing conditions after the storm half a block from the PHOTO-ERA office. The maker, Mr. Thomas Ellison, is to be congratulated upon accomplishing a difficult matter with rare success, both in respect to snow-quality and composition. No data are available, but such subjects are usually made on ortho plates with about ten minutes' exposure.

William Findlay's "The Residue of the Clearing" is a good example of spacing and of the importance of a suitable sky when material is commonplace. Data: Ray camera, 4 x 5; Aldis lens, 3-inch focus, f/8; October, 2 P.M.; sunlight and shadow;  $\frac{1}{60}$  second exposure; Barnet Iso plate; weak pyro-soda developer; enlargement on Kodak Velvet bromide paper.

In "Going to the Fields," by R. S. Kaufman, we see the same lighness and simplicity of subject and treatment which is characteristic of Holmeister and other European pictorialists, but here is also found greater breadth, and the result is the more pleasing for it.

Anna C. Ray has given us one of the daintiest little child-portraits we have seen in many a day. "David" has such a dear little innocent face that the vignette treatment seems thoroughly in keeping. Data: June; diffused light; Speed 20x plate; No. 8 stop; 2 seconds' exposure; pyro developer; print on Artura Iris Grade E.

"A Country Road," by T. W. Kilmer, M.D., is interesting as a pictorial treatment of a commonplace subject. Charming, indeed, is the sweep of fence and road, the spacing of trees and the mystery of what lies beyond the turn; but, after all, the chief beauty of the subject lies in its breadth. Data: bright light; Goerz Dagor lens, parabolic focus, f/11; 4 x 5 film;  $\frac{1}{60}$  second; clouds created into enlarged negative from a film and printed on Anglo Sepia Platinum, rough.

Through the courtesy of The Imperial Dry-Plate Co. we are enabled to reproduce "Early Morning," by A. J. Wilson. The subject is remarkable because of the beauty of natural surroundings, and the treatment which made the most of the atmospheric effect. Data: 8:30 A.M.; either their Spanderson camera, 4 x 5; Euryplan lens, f/5.6; front combination, 12 inch focus (one-second exposure); Imperial Orthochrome or Imperial Sensitiv plate; rodinal developer, 1 to 10; in Manilla tank; Imperial P. O. P. print.

All of Mr. Fornes's Rothenburg views were made early in September, 1909, using Kodak cameras developed with pyro metol in the bath and printed on Wellington Bromide.

"St. George's Church," 4 x 5 Kodak; Bausch & Lomb Plastigmat lens, stop f/8;  $\frac{1}{60}$  second; Enlargement.

"Tauber Valley, Toward Dettwang," 4 x 5 Kodak; Bausch & Lomb Plastigmat lens, f/16;  $\frac{1}{2}$  second; 3:30 P.M.; sun.

"Ramparts near Röderthor," 3 $\frac{1}{4}$  x 4 $\frac{1}{4}$  Weno Hawkeye; Voigtländer & Sohn's Collinear lens, stop f/9; 1 second; cloudy; 7:45 A.M.

"Taubergrund," 4 x 5 Kodak; Bausch & Lomb Plastigmat lens, stop f/16; 1 second; sun; 4 P.M.

"Glimpses of Rothenburg" and "Rothenburg Scenes," 4 x 5 Kodak; Bausch & Lomb Plastigmat lens, stop f/8 and f/16; exposures,  $\frac{1}{2}$  to  $\frac{1}{2}$  seconds, according to size of stop and time of day; light, generally cloudy.

"Stüberlein-Thurm," 4 x 5 Kodak; Bausch & Lomb Plastigmat lens, f/8;  $\frac{1}{2}$  second; 4:45 P.M.; sun.

"An Ancient Landmark," 3 $\frac{1}{4}$  x 4 $\frac{1}{4}$  Weno Hawkeye; Voigtländer & Sohn's Collinear lens, stop f/6;  $\frac{1}{2}$  second; dark; 11:35 A.M.

Carine Cadby's photographs of cats speak for themselves, and are delightful compositions, every one requiring the utmost patience to secure. Household pets are favorite themes, and Mrs. Cadby's success is phenomenal.

### The Monthly Competition

RARELY, indeed, does one see so striking a photograph as that which has been awarded first prize in the Vacation-Scenes Competition. "Feathered Friends," by O. Zernickow, is unique in subject and composition, but it will find many admirers. One could wish for more space above the boy's head and better detail in the whites below; but one can readily overlook these matters after being told that the maker struggled with his unruly subjects for two hours before getting a picture. Data: Graphic camera, 4 x 5; Goerz Dagor lens, 7-inch focus, stop 8; June, 4 P.M.; good light;  $\frac{1}{60}$  second exposure; film-pack; metol-hydro developer; black bromide enlargement.

"Westward," by Richard Pertuch, winner of the second prize, is essentially a sunset study, yet the figure is so strongly silhouetted against the light that the vacationist enjoying the glories of late afternoon becomes more prominent. In our opinion both figure and tree are a little too near the side and bottom of the space. Data: July, 5 P.M.; fair; Collinear lens, f/8; ray-filter;  $\frac{1}{2}$  second; Standard Orthonon plate; pyro developer; enlargement on Royal Nepera.

The third prize went to F. F. Sornberger for "A Shady Landing," a subject which is interesting chiefly for its contrasted masses of light and shade. The spacing of tree and boat is pleasing and the effect of light on the water very beautiful. Data: July, 4 P.M.; sunny;  $\frac{1}{2}$  second exposure at f/6.8; Cramer Iso plate; rodinal developer; Artura Carbon Green print.

# NOTES AND NEWS

Announcements and Reports of Club and Association Meetings, Exhibitions and Conventions  
are solicited for publication

## Change of Dress

ALL was quiet and serene — on the surface — when, with one accord, a number of photographic publications began the new year with a "Change of Dress." As usual, PHOTO-ERA set the pace. "You have got them on the run," writes a friendly subscriber. It certainly looks that way; for several contemporaries have copied the shape of our magazine, as well as other features. The public will accept these changes for better or for worse, but PHOTO-ERA wishes them all success.

## Our Jury of Awards for 1910

WHILE our method of awarding prizes in the Round Robin Guild contests under the new management — since January, 1907 — has met general approval, with the unavoidable exception of a few unsuccessful contestants, a change will be inaugurated beginning with this issue.

To the regular jury consisting of members of our editorial staff will be added Mr. Williams Howe Downes, art-editor of *The Boston Transcript*.

Mr. Downes is a critic and writer of high rank, and his opinions on art-matters are eminently sound and free of bias. Thus, participants in our picture-contests will have more reason than ever to accept with confidence the verdicts of our jury.

## Writers for Photo-Era

IN answer to an inquiry from a subscriber we may state that among the contributors to our pages for the year 1910 are the following: Robert Thorn Haines, A. H. Blake, E. O. Hoppé, R. James Wallace, Gaston M. Alves, C. Yarnall Abbott, W. B. Post, David J. Cook, Eleanor W. Willard, Walter Zimmerman, F. M. Steadman, Malcolm Dean Miller, William H. Phillips, C. H. Clady, Dr. George H. Scheer, William Findlay, George W. Stevens, Fred D. Maisch, Wilfred H. Schoff, Henry A. Peabody, Howard K. Adams, Wilfred A. French, Phil M. Riley and many others.

## Criticism of the Salon

THE author of our second illustrated article on the Sixth American Photographic Salon is C. Yarnall Abbott, of Philadelphia, the well-known pictorialist. Mr. Abbott is a gentleman of recognized artistic ability, a scholar and a competent critic. In soliciting his opinion on the pictorial work of the present American Salon, we gave him entirely free rein, having absolute faith in his ability and honesty. We are convinced that his able review, although brief, will be found to be instructive, as well as entertaining. His is

constructive criticism — not the kind that simply finds fault without giving an intelligent reason. His opinions are entirely frank and free of prejudice. He spares not even his own friends in his desire to be thoroughly fair-minded. We feel that we could not have selected a better man to fulfil so important and delicate a task.

## American Federation of Photographic Societies

THE opinions expressed by various authorities regarding the artistic standard of the Sixth American Salon are not cast in one mould. It is well that it is so. Nevertheless, it cannot be denied that the pictorial display is of very high order and, as is usual in such cases, it has been impossible to keep out a certain number of pictures that may not measure up to the highest artistic standard.

The Salon has a greater range of success in the way of places of exhibition than any of its predecessors and, gradually, more camera clubs are coming into line.

This is true of the camera club of Jamestown, N. Y., which has arranged to display, under its auspices, the Sixth American Photographic Salon, on January 22, for about eight days.

## Mr. Peabody's Salon Prints

BY an oversight the work of the well-known pictorialist, Henry A. Peabody, of Portland, Me., in the American Salon, figures as Henry F. Peabody in the catalog. PHOTO-ERA and other photographic journals have published pictures by Mr. Henry A. Peabody and they have always been of high artistic merit, which is true of this worker's contribution to the Sixth American Salon.

## Boston Camera Club

At the clubrooms, during Christmas week, was shown an exceptionally beautiful collection of Interchange photographs from the Buffalo Camera Club. The subjects were exceedingly interesting and the artistic standard very high. Almost without exception, the prints were Ozobromes or carbons giving combined brilliancy and softness without excessive high-lights or chalkiness. Among the subjects of special merit were "His First Bubble" and "Margery," by Charles L. Peck; "Where the Reed-Bird Loves to Dwell," by E. I. McPhail; "On the Slope of the Hill," by Charles A. George; "Albright Art Gallery," by W. E. Bertling; "By the Water's Edge," by William H. Kunz; "The Shore-line," by George J. Hare, and "The Sunset," by Harlow H. Boyce. Two prints by George J. Mason were "A Gray Day" and "The Homestead,"

reproduced in PHOTO-ERA for July, 1908. Other contributors who were well represented in the collection were Messrs. Johnson, Lumney, Friedmann, Crary and Savage.

The proof of the ad is in the pullin'.

Y. M. C. A. Camera Club,  
New York City

THE Camera Club of the Twenty-third St. Branch Young Men's Christian Association opened its work for the fall with a large exhibition of prints in September. Among the members who contributed work were Messrs. John Downie, J. C. Ramsperger, Ernest Adams, Charles d'Emery, Harold M. Wyckoff and J. O. Sprague. Mr. Downie showed a large number of landscapes; Mr. d'Emery had several beautiful views of Swiss scenery; and Mr. Adams showed a number of interesting night-scenes. Taking everything into consideration, it was one of the best exhibitions given by the club.

A series of Monthly Exhibitions and Tests have been started by the club. The subjects for the different months are as follows: December, Landscapes; January, Street-Scenes; February, Figure-Studies; March, Winter-Scenes; April, Night and Moonlight Views.

This plan has been adopted to get the members to show prints, to influence them to improve their work, and in this way to increase the usefulness of the club.

The best print of each exhibitor is to be marked on the following basis: sixty points for composition, thirty for technique and ten for mounting, making a total of one hundred points.

The December Test called out an unusually large number of landscapes, showing that the members are taking a great deal of interest in the plan. Mr. W. D. McJennett received the highest number of points on composition; Mr. S. I. Welsher, on technique; and Mr. C. G. Atherton, on mounting.

On December 6 Mr. William H. Zerbe, Director of Associates in Pictorial Photography, entertained the members with a talk on "Composition." He spoke of lines, masses, balance, unity and aerial perspective, and their relation to good composition, illustrating his points with prints and blackboard drawings.

After his talk Mr. Zerbe was asked to criticise the prints in the December exhibition, which he did, making the different marks on composition, technique and mounting.

The Print-Committee is making plans for the annual Exhibition of the club, which will be held January 1-8. It is hoped to make this the largest and best exhibition the club has ever held.

A number of interesting entertainments and educational tracts are being planned for the future. Several of our members are expert lantern-slide makers, and we expect to have a number of exhibitions of that character after January 1.

### Cleveland Camera Club

CLEVELAND has accomplished one of its long-felt wants — the formation of an enthusiastic camera club. On the eve of November 2, a few camera-enthusiasts organized the Cleveland Camera Club, under the auspices of the Cleveland Central Young Men's Christian Association. The first regular meeting, which was held Nov. 16, 1909, closed its books that evening with forty-one charter-members. The officers elected were: E. A. Ruggles, president; G. E. Berdige, vice-president; G. P. Rodgers, secretary and treasurer. Regular meetings are to be held on the first and third Tuesdays of each month, at which meetings programs will be as follows: Dec. 14, 1909, Mr. Sheets, of Eastman Kodak Co., will give a demonstration of Velox papers; Jan. 4, 1910, House-warming — Donation-Party and Magazine-Talk (donation to consist of photographs and any useful apparatus to become the property of the club); Jan. 18, 1910, Flashlight Demonstration, by Mr. Norton; Feb. 1, 1910, "Animal Photography" — talk by Mr. W. T. Higbee, and an exhibit of flashlight-pictures by members; Feb. 15, 1910, Lantern-Slide Demonstration by Mr. Lehman, and exhibit of animal-pictures by members; March 1, 1910, Trimming and Mounting Demonstration by Mr. Appel, and lantern-slide exhibit by members; March 15, 1910, talk on "How Lenses Work," by Mr. Warner.

### An International Photographic Exhibition

Is being arranged at Budapest, Hungary, by the National Union of Hungarian Amateur Photographers, under the patronage of His Royal Highness the Archduke Josef and Her Royal Highness the Archduchess Augusta. The exhibition will be opened in the Palace of Fine Arts between the fifteenth and thirtieth of May, 1910, and continue two months. Five classes of work will be represented: I, artistic photography; II, color-photography; III, scientific photography; IV, professional teaching of photography; V, photographic industry. Applications may be addressed to the management of the exhibition, Budapest, IV., Városház-utca 3-5. The management reserves the right to reproduce any photograph wherever desirable. All exhibits will be in Sections I-IV inclusive, insured against fire and burglary at the expense of the exhibition management. The exhibits in Section V are insured by the management at exhibitor's expense. Exhibits can be taken away from the exhibition before its closure only with the agreement of the management. Packing and returning will be done by the management. The exhibitors agree to acknowledge, for all judicial questions arising in connection with the exhibition, the competency of the tribunals in Budapest.

Never lend money without security, unless you can afford to lose it.

## A Noteworthy Lecture

Not long ago, PHOTO-ERA referred in terms of praise to Mr. H. Snowden Ward's new lecture, "The Marvels of Photography," besides printing Mr. Ward's advertisement. As a result, numerous engagements for this highly interesting and instructive entertainment have been booked; and we would suggest that camera clubs of the progressive sort, which have not yet included Mr. Ward in their season's list of lecturers, get busy. Mr. Ward's engagements in America are as follows:

Dates provisionally allocated to New England District: January 17-22, February 21-26; New York State, January 31—February 12; Pennsylvania, etc., January 24-29, February 14-19; Ohio, Illinois, Indiana, etc., February 28—March 19; New York State, March 21—April 6.

### DATES AND SUBJECTS DEFINITELY BOOKED

January	14.	"Marvels," New York.
"	17.	"Canterbury Pilgrimages," Bridgewater, Mass.
"	19.	"Canterbury Pilgrimages," Providence, R. I.
"	25.	"Canterbury Pilgrimages," Philadelphia, Penn.
"	26.	"Dickens," Philadelphia, Penn.
"	27.	"Shakespeare," Easton, Penn.
February	4.	"Marvels," Buffalo, N. Y.
"	14.	Harrisburg, Penn.
"	15.	"Marvels," Pittsburg, Penn.
"	16.	"Dickens," Pittsburg, Penn.
"	21.	Brockton, Mass.
"	23 (afternoon).	Salem, Mass.
"	23.	"Marvels," Exeter, N. H.
"	24.	"Marvels," Concord, N. H.
April	7.	"Marvels," New York.

Many other subjects are booked, but dates not yet fixed. The places include several in New York State; four in the New England States; Baltimore, Md.; Cleveland, O.; Chicago, Ill., etc.

### Lecture on Color-Photography

The lecture given, December 28 last, by Professor Louis Derr, of the Massachusetts Institute of Technology, before the Boston Scientific Society, was an event of no little importance. The camera clubs and other societies have been entertained during the past year with lectures on this popular subject which, in only a few instances, have deserved favorable comment. The lecturers, as a rule, have not been eminently qualified to speak on this important topic, nor have the screen-pictures or the Autochromes, shown in this connection, been of the sort to do justice to the process.

In the above-named lecture, however, the speaker, a professor in the Department of Physics and an authority of high rank, was thoroughly conversant with his subject, as is every speaker who appears before the Boston Scientific Society. Professor Derr proved to be eminently fitted to discuss color-photography from the beginning to present-day achievements.

He gave a clear and correct description of the processes of Lippmann, McDonough, Ives and Lumière, and explained the differences between the different makes of color-plates of commerce. Professor Derr did not hesitate to pronounce the McDonough process the most promising of all the processes in natural colors known to the scientific world, and sincerely hoped that means would be found to produce screens of absolutely uniform excellence — the only thing needed to make the process a positive commercial success.

### A Remarkable Practitioner

THE editor, recently, had the privilege to be shown through the establishment of Elias Goldensky, of Philadelphia — one of the world's great photographers. Astonishment and admiration were the mastering emotions of this rare experience of ours. The genial host conducted the writer through the spacious and tastefully-appointed reception-room, the numerous dressing-rooms, the various rooms conveniently arranged for different kinds of printing, for developing and for finishing.

Order, system and neatness were everywhere supreme. Every department is a model of its kind and in charge of a high-class specialist. Competent assistants do the work allotted to them with skill, celerity and conscientious care.

Gum-prints — the finest in the land — are produced by an expert of distinction. The same is true of the Platinotype Department. In the dark-room only stand-development is used. During the dark days artificial light with the Jupiter Lamp is employed, the exposures being instantaneous.

During the business-rush — usually before Christmas — after his arduous duties under the skylight are over, "Goldie" continues his energetic activity by inspecting the work turned out by the various departments, or by executing some other important task.

A man of sterling business-principles, sagacity and progress, and possessed of a healthy and resourceful mind and a well-defined artistic standard, Elias Goldensky stands high among his fellows, a credit to his profession and an example to every ambitious young man, be his vocation what it may.

### BOOK REVIEWS

*Books reviewed in this magazine, or any others our readers may desire, will be furnished by us at the lowest market-prices.*

DEUTSCHER CAMERA-ALMANACH for the year 1910. A year-book of contemporary photography. Founded by Fritz Löscher. Edited by Otto Ewel. Price, paper, \$1.25; cloth, \$1.75. Gustav Schmidt, Berlin.

This is Volume 6 of a very popular German annual corresponding in purpose to that of other well-known year-books published in the English language. Its literary contents is of a very high

standard, the contributions being from the pen of well-known authorities in the various branches of photography.

Among the leading technical articles are "The Dust-Color Gum-Process—a new method of color-photography," by Dr. Erwin Quedenfeldt; "Balloon Photography," by A. von Funcke; "A Simple Method of Stereoscopic Projection," by E. König; "Orthochromatic Photography," by F. Martin Duncan; "Flower-Photography," by B. Haldy; "The Production of Large Photographic Prints by Means of a Small Camera," by C. Jenezon; "Perspective and Its Relation to the Focal Length," by K. Martin. Articles on pictorial subjects are: "English Portrait Photography," by Agnes B. Warburg; "Principles of Composition and Line in Portraiture," by V. von Kleinenberg; "Pictorial Photography in London," by E. O. Hoppé, and others equally excellent.

The concluding article is devoted to a retrospect of progress and events of the year 1909, by Paul Hanneck. The illustrations are numerous, as usual; also well selected, and represent pictorial photography from an international viewpoint. The volume is justified in claiming the attention of every pictorialist, whether or not he be conversant with German, and is a credit to its editor and publisher.

**THE BRITISH JOURNAL PHOTOGRAPHIC ALMANAC FOR 1910.** Edited by George E. Brown, F. I. C. Publishers, Henry Greenwood & Co., 24 Wellington St., London, England. Price, paper, 50 cents, postage, 27 cents; cloth, \$1.00, postage, 37 cents. 1,337 pages. Sole American Agents: George Murphy, Inc., 57 East 9th St., New York, N. Y.

Welcome as ever, the 1910 issue of this bulky volume maintains its reputation for the greatest wealth of practical information contained by any annual. It is at once a guide and aid to the photographer, dealer and manufacturer, keeping them in touch with the world's progress in photography during the past year. All new inventions and processes are reviewed, and the

"Epitome of Progress," through generous quotations from the photographic press of the entire world, gives a summary of the best articles and investigations of the year 1909. Besides these features there is a large fund of tabular information and signed articles, including "Lens Calculations by Mental Arithmetic," by George E. Brown. Most of our readers know the worth of this annual, and those who do not will make no trouble to secure it.

**DEUTSCHE PHOTOGRAFEN-KALENDER-TASCHENBUCH UND ALMANACH FÜR 1910.** Edited and published by Karl Schwier, Weimar. Part I. Price, cloth, 50 cents.

Our German reading practitioners will be interested to know that Part I of this handy little annual for 1910 has already been published. This is pricier than usual. As heretofore this useful calendar is filled with high-class, up-to-

date, technical information in a condensed form and derived from entirely trustworthy sources. There are 651 choice recipes, covering the entire range of practical photography; a list of poisons and antidotes and chemical compounds; the entire German copyright law and a railroad map of Germany. Its two illustrations are gems—an inside group by W. Kübler and a color-print of fruit of remarkable realism. Part II of this calendar, consisting chiefly of a list of photographic clubs and societies, periodicals and publications and manufacturing-firms, will follow shortly.

**STORY OF DUTCH PAINTING,** by Charles H. Caffin. 25 illustrations. Square 8vo. 200 pages. Price, \$1.20 net; postage, 12 cents. The Century Company, New York.

There is something peculiarly attractive about a good work on the Dutch painters, and Mr. Caffin's volume has a particular and manifest charm. Among the numerous works on Dutch art we recall none of which the literary style surpasses that of Mr. Caffin in strength, conciseness and fluency. He wastes no words and holds the reader's attention to the end. He cleverly blends national history with biography, so that the art-student unconsciously learns of events prominently associated with the lives of those rugged Dutch artists.

In his analysis of the various styles of Dutch painting, as well as the principal masterpieces of that school, Mr. Caffin reveals himself as a critic at once sane, safe and lucid. Hence, his opinions are of great value to the student.

**THE "WELLCOME" PHOTOGRAPHIC EXPOSURE-RECORD AND DIARY.** Price, cloth-bound, 50 cents. 272 pages. Book one-half inch thick. Burroughs Wellcome & Co., 45 Lafayette St., New York City.

Once more this compact and attractive little book makes its appearance, this time bearing the date of 1910. As in the past, the chief popularity of the book lies in the diary and the ruled spaces for recording many hundreds of negative and positive exposures, as well as the exposure-guide itself, which is alone worth the full price. Accompanying the exposure-guide proper are lists of the comparative speeds of all plates, films and papers, and special instructions covering exposure in telephotography, copying, enlarging, reducing, photographing moving-objects and night-scenes. An especially ingenious method of timing interiors is given, as well as a table of relative exposures at various distances in gas-light printing. In addition to these features there are many pages of letterpress explaining the essentials of most photographic processes, particular attention being devoted to the extensive line of convenient Tabloid chemicals which are now available for nearly every purpose, including even the pigmenting compound for Ozobrome tissue. No serious photographer can spend fifty cents to better purpose than for this little hand-book.

# WITH THE TRADE

## Improved Trichromatic Work

ANOTHER booklet of valuable information has just been issued by the research laboratory of the G. Cramer Dry-Plate Co., St. Louis, Mo. The booklet has been prepared by R. James Wallace, director of the laboratory, and represents the cream of his theoretical work as well as a considerable amount of practical experience in photo-engraving. No one who is interested in reproduction-processes should fail to secure a copy. We hope in The Crucible Department of this magazine for March to review the booklet.

## A Flourishing Correspondence-Club

THE Correspondence Camera Club, organized and conducted by P. Mitchell, is an undoubted success. Mr. Mitchell advertises an offer in this issue, which has for its object an increase of membership. This, as well as his club, merits serious attention. Personal inquiry proves to our satisfaction that the club is an admirable institution. Among its members are many workers of high reputation.

## Spoiling Daguerreotypes

IT is a pity that so many daguerreotypes — often valuable heirlooms — have been irretrievably ruined by unskilled attempts at restoration. Formulas are frequently published for the restoration of faded or stained daguerreotypes. But even when the directions are trustworthy, it is not well to experiment with so delicate a process, and one which requires the skill of a specialist.

We have inquired very carefully into this subject and take pleasure to recommend Mr. Baldwin Coolidge, 410a Boylston St., Boston, U. S. A. He is an absolutely trustworthy expert and his charges are moderate.

## Gold Medal to Ilford Products

AMONG the manufacturing-firms who were awarded a gold medal at the International Photographic Exposition at Dresden, 1909, is Ilford, Limited, the well-known makers of Ilford dry-plates and papers. Users of the former are informed that Ilford plates will soon be included in the PHOTO-ERA plate-speed table in the Round Robin Guild Department.

## The Energetic Lumière Brothers

WE are informed that the Lumière Brothers are quietly experimenting with color-photography on paper. They have worked out a magnesium-powder process which permits of making reproductions of Autochromes by contact. They have, also, perfected a powder enabling the operator to make instantaneous Autochrome pictures by flashlight.

## Kodak Advertising-Contest

ONCE more the Eastman Kodak Co. in its 1909 advertising-contest has demonstrated that photography stands preëminent as a means of illustration for high-grade booklet and magazine-advertising. A wealth of material was submitted, and in addition to the prize awards a considerable number of extra subjects were bought at generous prices. The jury which passed on the work was highly competent, consisting of: Mr. Rudolf Eickemeyer, of Davis & Eickemeyer; Mr. A. F. Bradley, ex-president of P. P. A. of New York; Mr. Henry D. Wilson, advertising manager of *Cosmopolitan*; Mr. C. C. Vernam, general manager of the Smith & Street publications, and Mr. Walter R. Hine, vice-president and general manager of Frank Seaman, Incorporated, one of the largest, if not the largest, advertising agency in the United States. Mr. Frank R. Barrows, ex-president of the P. A. of A., was announced as one of the judges, but was unavoidably detained, Mr. Bradley kindly acting in his place.

### THE PRIZE-WINNERS — PROFESSIONAL CLASS

First Prize, \$500. William Shewell Ellis, Philadelphia, Penn.

Second Prize, \$400. Percy DeGaston, Lincoln, Neb.

Third Prize, \$250. Mrs. Gertrude Käsebier, New York City.

Fourth Prize, \$150. Bruguière & Eisen, San Francisco, Cal.

Fifth Prize, \$100. S. H. Lifshay, Brooklyn, N. Y.

### AMATEUR CLASS

First Prize, \$300. T. W. Kilmer, New York City.

Second Prize, \$150. Geo. H. Seip, Philadelphia, Penn.

Third Prize, \$75. Miss Nellie Coutant, Crawfordsville, Ind.

Fourth Prize, \$50. Mrs. Nancy Ford Cones, Loveland, O.

Fifth Prize, \$25. H. B. Conyers, Urbana, O.

## Post-Cards to Order

AMERICAN-MADE post-cards are now being used in preference to the imported European cards. One firm in particular, the National Colortype Company, of Cincinnati, O., has made rapid strides in improving this great American industry. It has devoted many years to experimenting in and improving hand-colored view-cards, and is now in a position to make cards from any fair photograph and deliver orders in two to three weeks, whereas four to six months are required to procure foreign cards. It will gladly send you samples of post-cards if you mention PHOTO-ERA.

### A Medal for Tabloids

A GRAND Prize (highest award) has been conferred upon Messrs. Burroughs Wellcome & Co. for their exhibit of "Tabloid" and "Soloid" brand products, including "Tabloid" photographic chemicals and "Wellcome" brand chemicals, at the recent Alaska-Yukon-Pacific Exposition, held at Seattle. This enterprising concern is also to be congratulated upon having arranged with the Ozobrome Company to market the Ozobrome pigmenting-formula in tablet form. As the introduction of the Ozobrome process may be said to have introduced carbon printing to photographers who are compelled to do their printing by artificial light, so the issue of this new tablet may claim to introduce the process to those thousands of workers who know by experience how reliable and how certain in action are Tabloids. It is also interesting to note that these "Tabloid" products can be used for preparing the bleaching-bath for the now popular Bromoil process, a simplified method for which is described in the pamphlet entitled "Oil-Ozobrome," issued by the Ozobrome Company.

### Chance for Up-to-Date Operator

THERE is always room for a strictly first-class studio operator—a man of well-grounded artistic ability, good moral character and energetic industry. An advertisement in the front of this issue indicates where such a man may obtain a first-class position.

### An Entertaining Lecturer

AMONG the naturalists who hunt wild animals with the camera, few are so successful as William Lyman Underwood. He has made this subject his life-study; and his great sympathy for dumb animals of all kinds, together with his remarkable photographic skill, has enabled him to secure a series of highly successful pictures. For several years past he has embodied his experiences in a series of lectures which he has given, frequently, before scientific bodies, camera clubs and elsewhere—always succeeding eminently in entertaining his hearers. Thus the Boston Camera Club was indeed fortunate to be entertained by him, December 12, last. The capacity of the

hall was taxed to the utmost, and the occasion was voted by all present a complete success. Mr. Underwood was in a humorous mood and kept his hearers in a constant state of merriment. His lantern-slides were remarkable for their technical merit and great beauty, the coloring being adequate and accurate, having been done by Mr. Underwood himself. It was a source of satisfaction to all that his entertainment was not marred by motion-pictures—a feature which seems to be indispensable to the success of the modern, up-to-date lecture.

### AnSCO New England Branch

THE demand for the high-quality goods manufactured by the AnSCO Company is growing so rapidly in all sections of the country that one branch after the other has been compelled to enlarge its quarters in order to cope promptly and effectively, as is the policy of the company, with the ever-growing demand.

The New England branch, formerly located at No. 101 Tremont St., Boston, has recently moved to 46 Cornhill, Boston. It will carry a larger stock on hand than was possible before, so that it will be a great convenience to dealers. AnSCO Company distributes its goods to the consumer. The personnel of the branch will be increased accordingly.

### New Schering Products

THE patent on the process of manufacturing metol has expired, so the Chemische Fabrik auf Actien (vorm. E. Schering) of Berlin is offering monomethyl-para-aminophenol under its own registered trade-mark of Satrapol, which is of the same high standard of purity as the Schering's Acid Pyrogallie and other products.

A simple method of redevelopment with one solution is found in Schering's Varitone Tablets, another new and valuable line of chemicals. Bromide and gaslight papers, lantern-slides and transparencies may be toned to green, brown, brick red and blue. The prints, after thorough washing, so as to be absolutely free from hypo, are immersed in a solution made from the tablets necessary to produce the color desired. The print changes from black to green, etc., in from two to three minutes, after which the prints are washed in running water until the whites clear.

## PHOTOGRAPHIC EXHIBITIONS

Information for publication under this heading is solicited

Society or Title	Date	Entries Close	Particulars of
Sixth American Photographic Salon Chicago, Ill.	Feb. 1-28		C. C. Taylor, Sec'y, 3236
St. Louis, Mo.	Mar. 6-14		Cambridge Ave., Toledo, O.
St. Paul, Minn.	Mar 24 to		
	Apr. 6		
Racine, Wis.	Apr. 20-30		

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Official Organ of the American Federation of Photographic Societies

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Contributions relating to photography in any and all of its branches are solicited and will receive our most careful consideration. While not accepting responsibility for unrequested manuscripts, we will endeavor to return them if not available, provided return-postage is enclosed.

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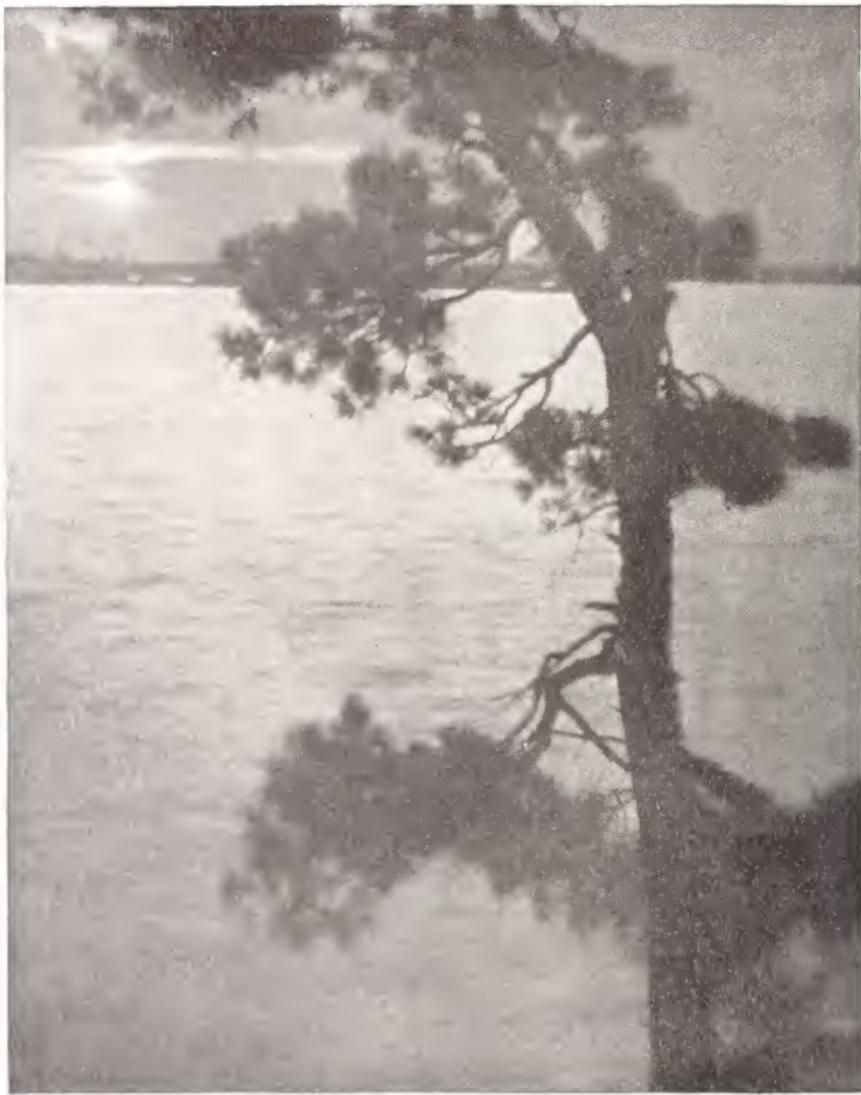
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THE SUN-WORSHIPER  
W. H. PORTERFIELD  
1907 AMERICAN PHOTOGRAPHIC SALON



# PHOTO-ERA

The American Journal of Photography

*Official Organ of the American Federation of Photographic Societies*

Vol. XXIV

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No. 3

## The Sixth American Photographic Salon

C. YARNALL ABBOTT

HERE is a tradition to the effect that if photographs are chosen by a jury of photographers a premium is set upon merely technical merits to the exclusion of the pictorial idea. As a result of this tradition, the promoters of photographic exhibitions frequently select, in composing their juries, painters, or men closely connected with the art of painting, with the praiseworthy idea of ensuring thereby the establishment of a high artistic standard.

Curiously enough, in actual practice this idea never seems to justify itself. The finest open exhibitions of pictorial photography that have ever been held have been entirely in the hands of juries of photographers, and those exhibitions for which painters have served, or have been given the credit of serving, have represented a much more general scope and a far lower average of merit.

The Sixth American Salon is no exception to this rule. The standard is not high. Fully two-thirds of the work shown should have no place in what purports to be a "Salon," representative of the best work of the present period.

There can be, of course, no question as to the desirability of the holding of general photographic exhibitions of pictorial character. We see entirely too few of them in this country. Considered from this point of view the present show has much to commend it, though it is too large and too indiscriminate to have the value that it

might as an educator of the popular taste.

For, fundamentally, the object of the whole thing is to demonstrate to the picture-loving public that photography may be a means of individual artistic expression; and, obviously, the educational value of the fine work which a show may contain — and which this show undoubtedly does — is lessened by the inclusion, under the same auspices, of work which is conventional, without artistic intent or which is simply "bad art."

From the two hundred and fifty prints which compose this exhibition a group of fifty or sixty or, perhaps, even seventy-five could be selected which would be of unquestioned high quality and which would make a show which the most carpentering critic could not dream of depreciating.

In the American section a remarkable group is shown by the little club of Buffalo men who call themselves "The Photo-Pictorialists." Four of these workers — Anthony, Lidbury, Porterfield and Sides — may be said to have developed a "school" that is almost as distinctive as that established by the Barbizon school of painters. Their work in landscape is characterized by a certain "bigness" and breadth of composition and, occasionally, as in Lidbury's "A Modulation," by an extraordinary richness and depth of color. Porterfield's "Italian Woodland Evening," while not quite so sumptuous in its color-suggestion, possesses a somber dignity which is most satisfying. His "Sun-

"Worshiper" is an effective Japenesque composition which carries well, as does his "Lowlands in Jersey"—one of the most satisfactory compositions in the show. Sides' "In the Valley" is a fine, rich spot on the wall, but not quite pleasing in the balance of its masses. Anthony's "Moonlight" is interesting, as is his "Albright Art-Gallery," though, in the latter, the patch of light in the foreground seems untrue.

The only one of the Photo-Pictorialists to try his hand at figure-work is Mr. Thibaudeau. He shows four large heads, rather unfortunately presented in heavy dark frames and, to me, quite lacking in interest.

A very notable print, which has much in common with the landscape-work of the Buffalo group, is Cushman's "Meadow Fantasy," which also shows a remarkable richness of tone and an unusual and most charming composition of curving lines.

Chislett's "Winter on the River" is dignified and fine in quality and worthy to hang in any company. His "Winter on a Winding Stream" is also very attractive, particularly on account of its richness of tone and suggestion of color, though it is more conventional as a composition. "The Phantom City" seems too gray and colorless, though it possesses considerable charm.

It is a curious fact, by the way, that the *color-suggestion* of a print seems to be very little dependent upon the actual introduction of pigments. Many a monochrome subject, like Chislett's "Winter on a Winding Stream," or the Lidbury or Cushman previously mentioned, creates an illusion of color that is more striking and much more true than that produced by the prints in which pigments have been used. An illustration of this is afforded by Eiler's "On the Lake," in which, while color is actually present, it is so untrue that the illusion is hindered rather than helped.

Compare the color in this print with that in Demachy's "Brittany," a beautiful example of the oil-process, in which color is so strongly suggested that it is hard to realize that it is not present.

Probably this feeling of "color" is largely a question of scale of tone. There is no doubt that the suggestion can be helped by the use of a liberal range of values, and probably by a rather low key, as in the Demachy example just mentioned. Randall's "Speedway" has it and is a very successful print, unusual and striking in composition, though, perhaps, a trifle too "woolly." Mr. Randall would do well to dispossess himself of the idea that fuzziness, as such, will make a picture. His "Park Bridge," while charming in tone, is ruined by the total lack of accent and differentiation of planes. His "Fountain" is even worse. Here diffusion has gone to the extreme of total elimination of form.

Another exhibitor, who seems to labor under the same delusion as Mr. Randall, is Mr. P. L. Anderson. His "Mist on the Hudson" is an unusual composition which might well have been saved by a little more drawing. It suggests, not mist, but a serious impairment of vision. "In Chelsea Square" is better, but the strength and solidity of the old church-tower are lost by the unnecessary diffusion and the spot of light on the foreground figure is too high. "Summer Sunlight" and "Girl with Camera Work" are pleasant in their close values, but even here a slight strengthening of drawing would effect an enormous improvement. In the latter print the accent falls on the rather clumsy spot of the book instead of on the face—the center of interest—where it rightly belongs.

Arthur Marshall's "Dublin," effective as it is, is another example of the loss through too much diffusion. Strengthening of the dark mass of the vessel, in the foreground, would have thrown the whole thing into relation.

I hold no brief against diffusion of focus. It is a natural outgrowth of the movement against the wiry hardness of pre-pictorial days, but must be used with due regard for the character of the subject. One of the charms of photography is its ability to indicate the texture of surfaces, and this quality is almost certain to be lost where extreme diffusion is employed.



A MODULATION  
F. AUSTIN LIDBURY  
SIXTH AMERICAN PHOTOGRAPHIC SALON



An example of the beauty which may exist in straight photography is furnished by W. and G. Parrish's charming "Closed Door"—a beautiful arrangement in which the texture and quality of drapery, flesh and surroundings are exceedingly well rendered. The figure is perfectly placed, and the accents furnished by the dark spot of the hair and the two subordinate spots of shadow are balanced with great skill. There is no striving here after an effect which could have been better produced by the brush or the etcher's needle; it is the use of photography to create an effect of which no other medium would be as capable.

Much the same praise should be given to Nichols' "Flower-Study," in which the space is admirably filled and in which the texture of the flowers has been remarkably well suggested.

Baron de Meyer's flower-study "The Glass," fine as it is, seems to suffer by comparison with Mr. Nichols' distinguished print. It is a study of values rather than one of flowers. The glass is well suggested, but the flowers might be made of paper or chewing-gum.

Another print which owes its charm largely to the purely photographic qualities of what I may call "daintiness" of drawing and cameo-like detail is Phillips' "Chioggia." It is most satisfying in tone and arrangement, but seems a little lacking in the differentiation of the planes. Here is a case where a shade of diffusion in the drawing of the background buildings would have been desirable as tending to indicate the stratum of shimmering atmosphere which must have divided them from the center of interest—the group of fishing-boats. Mr. Phillips' "Ponte Vecchio" is a little less of a picture, but has much charm of tone and quality. His "Argolian Shepherd" is a good subject handled in a totally commonplace manner, while "A Turkish Watercraft"—another fine subject—is most unfortunately put in the space.

A much better "Watercraft" is that in Mrs. Willard's "Coming into Port," an interesting gum-print, well composed, with the exception of the too perpendicular

line of the sail, but in which the quality of the water has been somewhat impaired by one or two lapses in technique. "Old Normandy Houses" is very effective, but I feel that, in breaking the line of shadow in the lower left-hand corner, Mrs. Willard has allowed the fascinating possibilities of gum to blind her to the truth.

Shreve's three prints bring us back to the question of color. They are among the few examples of multiple gum in the show and demand attention, if only for the skill which they demonstrate in the handling of this difficult medium. All three are pleasing in composition—notably "Cedars in the Afternoon" and "Windswept"—but, considered as color, leave much to be desired. It is impossible to avoid the criticism that this is "studio-work"—not representing a clearly-defined scheme in which the several steps, from the making of the exposure up to the final printing, were carried out with a conviction as to the eventual message which the print was to convey. Yet this is big work along pictorial lines and worthy careful consideration.

Much the same criticism applies to Zimmerman's four prints. Serious pictorial efforts as they are, all fall short, to my way of thinking, in just the quality for which their maker most strove—that of color. From this standpoint "A Country Road" is probably the most successful, as it is also as a composition of masses. The line of the road is, however, rather unfortunate. "Blanchisseuses" is very well composed and there is much that is dignified and effective in "A Grand Canyon." "Scala Santa" is a most interesting subject, but seems heavy and clogged as to color and a little unbalanced as a composition.

Smith's "The Dock" is a remarkable example of the technical possibilities of the gum-process. The worst that can be said of it is that, paradoxical as it seems, it is too technically perfect. The charm of gum is its "looseness." Mr. Smith has demonstrated that it is possible to make gum as "tight" as platinum.

The antithesis of Mr. Smith's gum-work is furnished by Eisen's "Tragedy in



WINTER ON THE RIVER

JOHN CHISLETT

SIXTH AMERICAN PHOTOGRAPHIC SALON

Stone" and "The Demon of the Air," in which the unphotographic quality of the medium has been exploited to the utmost. In the former — a view of the Coliseum and one of the most original and striking prints in the exhibition — one feels inclined to pardon the obvious untruthfulness of foreground and sky in recognition of the absolutely dramatic quality of the thing as a whole. "The Demon of the Air"—Vesuvius in apparent action—seems to go too far in its attempt at dramatic qualities, and is much less satisfactory.

Among the foreign prints, in addition to those already mentioned, particular attention should be paid to two remarkable interiors: Müller's "Sunbeams," which is a superb bit of genre and in which the shafts of sunlight through the cottage-windows are wonderfully well rendered, and Middendorp's "Interior"—a charming subject with all the quality and color

of an old Dutch mezzotint. The foreign portraiture is much stronger than our own; in fact, the American section shows very few portraits of any sort. Duhrkoop's group of work is interesting, though not particularly inspiring. Max Glauer, of Oppeln, shows a stunning "Professor Max Wislicenus," in which the painter stands before what is evidently one of his own canvases, and Baron de Meyer has an unusual and striking portrait of Mrs. Käsebier.

But space forbids a fuller discussion of individual prints. In the limits of an article of this length one must, perchance, confine himself to generalities. I can best close by expressing the earnest hope that this exhibition, perhaps unhampered by the name of "Salon," may continue as an annual event, and that many more American workers with pictorial ideals may avail themselves of the opportunity which it affords them.

CHIOGGIA

SIXTH AMERICAN PHOTOGRAPHIC SALON

WILLIAM H. PHILLIPS



# Lawton's Landscape

## A Photographic Story

WILLIAM FINDLAY

TOWARDS the end of the winter session the Conway Photographic Society had an accession to its ranks in the person of a shy, retiring, fair-haired young man. He listened to the various lectures with interest, but offered no criticism; and in the competition at the wind-up of the session no entries were sent in by John Lawton, for such was his name.

Summer excursions were arranged by the committee, and the first was to the Fairy Glen, a much-photographed spot to the west of the town. A goodly number showed up at the rendezvous, and among them our friend John. Arrived at the spot selected, a plethora of possible pictures was spread out before one, and the question which arose in most minds was "What particular spot will make the best picture?"

The president took John under his wing, along with some other novices.

"Now, gentlemen," he said, after he had led them to a spot where a stray tree or two was silhouetted against the distant landscape, "this is, perhaps, the best view to be got in the district; you will oblige by erecting your tripods at various points. Now, Johnson, go there. Simpson, you'll be better here. Loftus, your lens is of long-focus; stand a little further back. And Lawton, where I stand you could operate."

The tripods were set up, and focusing proceeded with all except Johnson, who was possessed of a fixed-focus camera.

"How many feet would you say the nearest tree was from you, Johnson?" said the president.

"About thirty, I should think," replied Johnson.

"Does the nearest tree-top appear on your view-finder?"

"Oh, yes."

"Very well; wait till I go round to the rest, and I'll tell you what exposure to give."

Away the president went to Simpson, and looked beneath his focusing-cloth.

"Yes, that will do, but stop down to f/16."

Loftus' point of view was next visited, and here the camera was removed a little further back.

"Ah, Lawton," said the president, when he came to examine John's ground-glass, "you've got a remarkably fine lens, but your distance is fuzzy. By stopping down you will get more definition."

"Does n't the fuzzy distance give atmospheric effect?" said John.

"Oh, I'm no believer in that new-fangled idea; give me everything as sharp as possible."

"Very well, I'll stop down, Mr. Petersen. How far would you say?"

"I should say, f/22 and an exposure of two seconds; and as there is a fitful wind, keep your eye on the tree-tops and watch for a favorable opportunity."

The favorable moment did arrive.

"Now you might move a little to the side, Mr. Lawton, and allow Mr. Loftus to have his picture," said the president. Other beauty-spots in the vicinity were visited under the same tutelage, and on the homeward journey hints were given as to development, the printing-processes to employ, etc.

Lawton's resultant plates did not please him. They were sharp and crisp, without a doubt, but the skies were of inky blackness, and printed virgin white. He showed the prints to Mr. Petersen.

"You are getting on, my lad," said he. "You're remarkably well up in technique, and you'll soon be a credit to our society."

When the society resumed its winter work a lecturer came to let the members know all that was to be known about the autochrome plate, and some of the examples shown were really remarkable. Truly we live in a wonderful age. The conquest of the air is begun in real earn-

est, after preliminary trials extending over a century; and color-photography, to which many of the foremost scientists of the age have developed attention, has also been realized. We have a long way to go yet before perfection is reached, but the foundation is securely laid and the building is in course of erection.

After the lecture the president intimated that slides made from negatives taken during the summer excursions would be passed through the lantern. Many were shown, and some of them were excellent.

"Have you nothing, Mr. Lawton?"

"Oh, yes, sir, I have a few here, but I don't know that they are worth bothering with."

"Oh, never fear; we know that you have not used a camera very long; and members will make allowance for that in any criticism which is offered."

The first slide put through was entitled "In the Fairy Glen." Its remarkable beauty elicited a "Whew!" from the members, and before all had been exhibited criticism was entirely disarmed.

"Are these the photos you took at the excursion, Mr. Lawton?" said the president, "and have you printed in skies? If so, I must congratulate you on your skill in this rather patchy procedure."

But John had no time to answer, when he went on —

"We must congratulate our young friend on his remarkable advance, and in the forthcoming competitions most of us will have to 'buckle to,' or we will be hopelessly beaten. The meeting is now ended."

On the way home Lawton was accompanied by John Davidson.

"Did you print in your skies, Lawton?" said he.

"No, I did not, Mr. Davidson; the whole thing is on the plate."

"But there were no clouds that Saturday."

"No; but there were other days, and I don't mind telling you that I have been back to the Fairy Glen on many occasions since then. Some days I took nothing at all because weather-conditions were not propitious; but on others nature's masterpieces followed in quick succession, and I have been fortunate enough to get an impression or two of them. But I have not got exactly what I want yet; and I hope to be back again before winter sets in in quest of it."

"Had you nobody with you?" said Davidson. "I always like a companion or two with me when I go on a photographic excursion."

"Well, I'm afraid I'm built differently," replied Lawton; "for when I go it is all by my 'lonesome'—that is the best way to commune with nature."

"Well, all I can say, Lawton, is that you'll never get better pictures in the Fairy Glen than those you showed tonight."

"We shall see what we shall see," replied John. "Good-night."

In the late autumn a spell of glorious weather favored the harvesters. And Lawton garnered his at the Fairy Glen. He showed one of the prints at the society the other evening, and was advised to send an enlargement for reproduction in *PHOTO-ERA*. If he does the members feel certain that the fame of this obscure society will be spread abroad, and that this unassuming member who has artistic gifts, which photography has developed in a remarkable degree, may yet rank among the foremost American photographers.

*Art in its highest sense is but the quality of expression.*

— WALTER CRANE.



IN THE VALLEY  
EDWARD B. SIDES  
SIXTH AMERICAN PHOTOGRAPHIC SALON



# Rendering Motion in Pictorial Photography

H. B. WHISTLER

**A**LL of us, I am sure, are familiar with the grotesque effects obtained as a result of snap-shottting rapidly-moving horses and athletes. This, I need hardly explain, is due to the excessive speed at which the shutter is driven in order to obtain a clear image of the legs, which, of course, are moving much faster than the body as a whole.

As an attempt to convey the idea of speed it is obviously a failure, and, in fact, subjects of this nature are far better avoided by the pictorial photographer.

The successful rendering of motion by photography is a very difficult and, at the same time, a very interesting problem. It really can be conveyed only by more or less subtle suggestion, as much as possible being left for the imagination of the spectator to work upon. Particular attention should be paid to the position of the moving object, both in relation to the margins of the print and the other objects within the composition, taking care, at the same time, to use the shutter at the slowest speed allowable under all the circumstances of the particular case in hand.

As a general rule, the principal object should be placed to one side of the picture, leaving a greater space in front of it, so as to give the impression that it had plenty of room to go ahead. The eye should be unconscious of any strong vertical lines in front, as this generally kills the effect of movement altogether.

This rule, like all others in pictorial work, should, of course, not be blindly adhered to; as very often successful results can be obtained by the object being shown as disappearing, or about to disappear, right out of the margin of the picture. The effect can be greatly enhanced if a similar object, which should be best placed either in the middle or extreme distance, so as to make it appear smaller than the other, and going nearly in the opposite direction, is included. This will be found to be particularly successful when dealing with

yachts and sailing-barges, owing to their beautiful lines.

Very often movement is better suggested by showing only a portion of the object or objects. Take a picture composed of some flat marshland in the foreground with a dyke just beyond, and above which a large part of the sails of barges, etc., are visible. If they are properly placed it is surprising the effect this has on the imagination.

It is on this latter point that photography fails, in comparison with the other graphic arts, in the rendering of motion, especially when very rapid. The painter can naturally put in only just what he considers necessary, relying principally on the direction and flow of his lines, etc., whereas the poor photographer has to accept what is there. The only chance he has to get nearly what he wants is in the choice of the time as to *when* he can make his exposure. This, of course, helps him to a certain extent, but is really a compromise.

He should always pay particular attention to the lines and curves of the subject; they should all help the forward movement by the direction of their flow as much as possible.

When dealing with trains and galloping horses, a great mistake is made in trying to get them on too large a scale, in comparison to the size of the print. The wheels and legs should not be too distinctly seen. If these objects are taken when some distance away, and approaching in a cloud of smoke and dust, the appeal to the imagination, from the point of view of "speed," is much greater.

Another mistake is that of driving the shutter too fast, irrespective of the speed and direction of the moving object. Even in such a comparatively slow-moving subject as rippling water with reflections is this unnecessarily high speed used. Of course, each separate case has to be judged according to its various modifying cir-

SIXTH  
AMERICAN  
PHOTOGRAPHIC  
SALON



SCALA SANTA, AURAY, FRANCE

WALTER ZIMMERMAN

cumstances; yet if, instead of employing the usual speeds of, say,  $\frac{1}{25}$ ,  $\frac{1}{50}$ ,  $\frac{1}{100}$ , or  $\frac{1}{200}$  of a second, we were to give an exposure of from 1 to  $1\frac{1}{2}$  seconds (or even longer in some cases), a far better impression of motion would be conveyed, as well as showing a considerable improvement in the rendering of the distinctive character of water, making it seem to be really liquid, and not as if it were made of tin, as, I am afraid, it very often appears to be. Another advantage is that we should be better able to do justice to the dark shadows and objects generally to be encoun-

tered in subjects of this class, especially in docks and harbors.

As regards the question of definition of focus, this, to a certain extent, must be left to the taste and judgment of each individual worker; but, as a general rule, it should be somewhat on the soft side.

It is impossible in the scope of a short article to do more than touch on a few of the main points of this difficult subject; but it is hoped that sufficient has been said to start the beginner to think and observe for himself in the right direction.—*The Amateur Photographer*.



OLD POTATO-HOUSE  
W. G. POST



## Photography of the Snow

W. B. POST

HAVING been asked by PHOTO-ERA for an article on winter-photography, I am somewhat at a loss to choose a phase of snow-work that would most interest its readers. In the limited space at my disposal it is not possible to give many experiences; as in twenty-five years of work one could write a book on his mistakes and the lessons taught by many unfortunate accidents and bitter disappointments. Did you ever make two exposures on one plate? The writer has; and once started out with four plates, coming home after a hard and cold, but very enjoyable, morning's work with four exposures and many hopes. The dark-room revealed three exposures on one plate, two of the others unexposed and the last a very indifferent negative. Can you figure it out? I cannot; but do know that my reputation for correct words was not improved by the incident.

It occurs to me that I have chosen photography of the snow as my favorite subject for landscape-work because of the truer rendering of tones and color-values. It is much more satisfactory, and to me a great deal easier, to have a minimum of reds and greens on the ground-glass; there is less that one will have, in his mind's eye, to reduce to black and white, and the tonal variations of the two latter colors. Again, you will get a more even lighting of your sky and foreground. There will seldom be a necessity for printed-in skies; although much greater care has to be observed in preserving the sky-line when you have no positive objects in your middle-distance, such as a line of trees or buildings. The junction of sky and water is no more difficult than a harmonious blending of where the snow ends and the clouds begin.

Speaking of clouds, in winter-work you do not as often get the cumulus or cirrus effects as you do in summer and autumn. Almost always one has to substitute tonal values for the positive cloud-forms. On a

cold, sharp morning — say with mercury at zero, or below — it is hardly possible to get a blank, white sky; you are likely to get the gray tone of a winter's day, as the distance is full of atmosphere that will gray over even a brilliant sky. It is even more necessary in snow-work to have your clouds or tone than it is in summer-time. Full exposure is necessary; and, at the same time, one must remember that there is a reflected light almost, if not fully, as powerful as in marine-work. Personally, I prefer bright days; and in the dead of winter, when the days are short, from ten to two o'clock. Later in the season your best results are obtained earlier or later in the day. Here in Maine, where the winter is long, the best chances come in February and March, and some of my best work has been made in April, and even in the rubber-boot weather of early May.

If you are working with trees, do not have the light directly on them; and be sure that they are not wet, as, in either case, they will stand out black and reduce your picture to a hard black and white. For myself, I prefer to work against the light, even if the lens has to be shaded. For that I use my hat, or, better still, dark brown paper rolled in the shape of a megaphone and placed over the lens. Care should be taken that the rays of the sun, while they should not shine directly into the lens, should fully illuminate the ground-glass. Often I use a tree-trunk, standing in such a position as to shield the direct rays of the sun from my lens, while, at the same time, the subject will be well lighted.

One of the most difficult things in a pure snow-landscape is the foreground. It is, of course, not desirable to have a white expanse like a winding-sheet; and if foreground-studies are sought after and the objects near at hand do not arrange themselves in such a manner as to satisfy your ideas of correct composition your blank expanse can be filled in properly by a



CHRISTMAS MORNING

W. B. POST

trodden path, or tree-shadows. In this case it becomes almost necessary to have your source of light from the front or front sides of your lens. By doing this the sun will shine through (if such a term will apply), instead of on, the snow; the direction of the shadows will be more pleasing; the sparkle and quality of the snow will be much truer, and your distance will be softer—in fact, all the planes will be more in harmony, and that disagreeable sharpness so often seen in snow-landscapes will disappear. There may, of course, be times when the light from behind is to be desired, but in foreground-work it can seldom be done without introducing shadows from the sides or rear, which do not explain themselves. When your subjects are the delicate tracing of frostwork or the honeycombed surface of March

crusts, the forward lighting is almost a necessity. This latter work in the early spring, before the sun gets too high, is most fascinating, and, at that time, the results of freshets and breaking up of the river give subjects that are grand, even if one can do no more than look at them when they are too crowded, which is often the case. Much more to my taste is a snow-scene with fewer and smaller objects instead of large masses.

Springtime in its early stage furnishes many opportunities—melted snow and water, swollen streams, and even the first rains when the snow is on the ground and the air is full of moisture and atmosphere. In this last condition, and with only a minimum of sunlight, you can get some very unusual and beautiful results, particularly if some snow-covered roofs or



EARLY SPRING  
W. B. POST

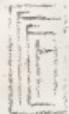




A WAYSIDE INN

SIXTH AMERICAN PHOTOGRAPHIC SALON

FRANK E. HUSON



trees are in your middle distance.

Many people have said to me that I have great advantages in living in the country, and in a place where there is so much snow. This is not entirely the case, as one has opportunities in a large city to get

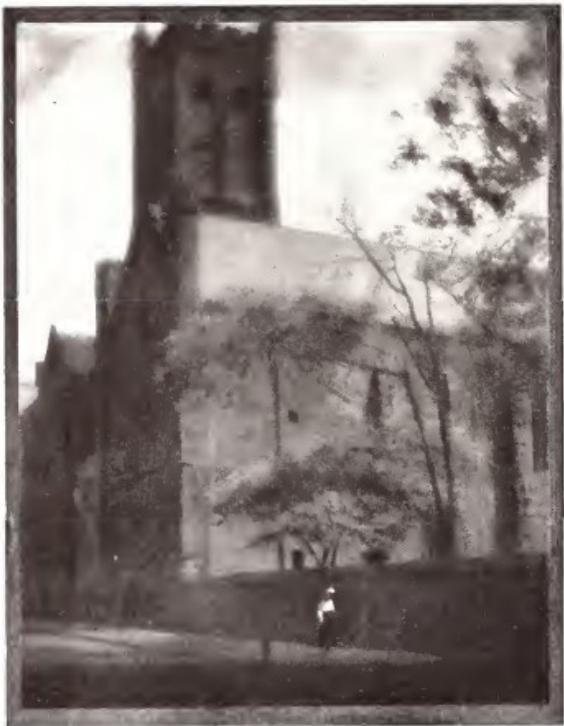
effects which I often wish for. For many years I lived in New York City, and have done work in Central Park and surrounding country. The night-work made in winter by Mr. Stieglitz and Mr. Fraser, done in the heart of the city itself, bears



LENGTHENING SHADOWS  
W. E. POST



SIXTH  
AMERICAN  
PHOTOGRAPHIC  
SALON



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IN CHELSEA SQUARE

PAUL LEWIS ANDERSON

out my statement. The Boston readers of PHOTO-ERA have subjects at their very doors and in the many surrounding beautiful suburbs, which are unsurpassed; and while very different from the class of work at my command, I sometimes envy the worker in the metropolis.

In very cold weather, aside from the fact that the sun has less warmth and consequently less power, my experience makes me think that, all parts of the apparatus, and also the plates in the holders, being as cold as ice, a longer exposure is necessary. In other words, allowing for the fact that you have an increased light, caused by the brilliant white of your subject and also more reflected light, the exposure is almost, if not quite, as long as in

summer. Later, when the sun is more powerful and the weather not so cold, a shorter exposure can be given. In this connection it must be remembered that a piece of ice put in water will, of course, rapidly lower the temperature, and it is remarkable how long a glass plate will remain cold after having been once chilled. Therefore, one must wait before development until the plate is again at a normal temperature; otherwise development will have to be prolonged to the point of danger from chemical fog. I incline to over-exposure; but it is impossible for me to give a correct time-table for any one else, as the conditions of light and heat vary much more than one would suppose. Again, I work with old-fashioned tools, and my lenses

cannot compete in speed with the rapid ones of today. My favorite instrument for snow-work is a Ross rapid rectilinear of 16-inch focus, used on an 8 x 10 plate.

You can do a great deal on your prints with a pencil, provided rough-surface papers are used. When I have white patches on a print that show no detail, or an uninteresting sky, I find the pencil of great value. Some of my skies are entirely put in by that process. My method is to shave off or powder a small quantity of lead from a No. 4 Faber pencil onto a separate piece of paper, then apply with a dry finger to that portion of the print that requires treatment. Do not be afraid to rub it in (not too hard, of course, or the surface of the paper may be injured), but make it as black as you choose; then with a fairly-large square of soft art-rubber go over the surface lightly, until what you wish remains. You can remove little or all, or leave the shading darker in some

places than others, as your judgment may dictate. A sky so treated and properly manipulated, held at a little distance or under glass, will look perfectly natural. My picture hung last year in the "Photo-Secession Exhibition," and reproduced in the *New York Times*, had a blank sky, which was formed entirely by this process.

Where I have used the words "forward shadow" I mean shadows that run toward me, or toward the front of the camera.

In conclusion, I use the Seed Orthochromatic plates, usually a non-halation landscape of a sensitometer of about 26. I have always used the Seed, and have never wished to change. My lenses are Ross, Steinheil and a single Voigtländer, all rather slow. The subject I have written on is as full of trouble and requires as much patience as any other in photography; but when all goes well the results are truer and more satisfactory than most other landscape-work.



ON THE LAKE

SIXTH AMERICAN PHOTOGRAPHIC SALON

BERN F. EILERS

# Our Exposure-Guide in a New Dress

EDWARD B. JOHNSON

HAVING read the article in the November, 1909, number of *PHOTO-ERA*, by Herbert A. Clawson, on The Round Robin Guild Exposure-Guide, compiled by Phil M. Riley and published in that magazine, the writer was tempted to present the results of the condensation he has made of the table, giving the same exposures, only, in the writer's opinion, more easily calculated.

A.M.	12-11	11-10	10-9	9-8	8-7	7-6	6-5
P.M.	12 1	1 2	2 3	3 4	4 5	5 6	6 7
JUNE	10	10	10	15	20	25	30
JULY MAY	10	10	12	15	25	30	60
AUG. APRIL	12	12	15	25	35	60	
SEPT. MAR.	15	20	20	30	60		
OCT. FEB.	20	30	40	100			
NOV. JAN.	30	45	90				
DEC.	40	60	160				

FIG. 1. TABLE OF LIGHT-INTENSITIES

Figure 1 is a table of light-intensities in which all values have been multiplied by ten to avoid decimals.

Figure 2 is a table of ratios for subjects combined with weather-conditions.

Figure 3 gives the exposure in seconds or decimal parts of seconds for plates listed in Class 1 of The Round Robin Guild Exposure-Guide.

To use the table, find the month of the year in the left-hand vertical column of Figure 1 and the time of day in either of the upper two horizontal lines, the first line being for morning and the second for afternoon. Where the selected column and line intersect will be found a number representing the intensity of light for that

day and hour. This number is to be remembered while Figure 2 is examined. From the left-hand column select the subject to be photographed and follow

SUBJECTS	Bright Sun	Slightly Overcast	Dull	Very Dull
Studies of sky and fleecy clouds .....	A	B	C	D
Open views of sea and sky; very distant landscapes; studies of rather heavy clouds .....	B	D	E	F
Open landscapes without foreground; open beach, harbor and shipping-scenes; yachts under sail; very light-colored objects; studies of dark clouds ...	D	F	G	H
Average landscapes with light foreground; river-scenes; figure-studies in the open; light-colored buildings and monuments; wet street-scenes .	F	H	J	K
Landscapes with medium foreground; landscapes in fog or mist; buildings showing both sunny and shady sides; well-lighted street-scenes; persons, animals and moving-objects at least thirty feet away .....	H	K	L	M
Landscapes with heavy foreground; buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red brick buildings and other dark objects; groups outdoors .....	K	M	N	P
Portraits outdoors in the shade; very dark near objects.....	M	P	Q	R
Badly-lighted river-banks, ravines, glades and under the trees .....	P	R	S	T
Average indoor portraits in well-lighted room, light surroundings, big window and white reflector .....	S	U	V	W

FIG. 2. TABLE OF SUBJECTS AND WEATHER

this line across the table to the column corresponding to the prevailing weather-conditions. Where this line and column intersect will be found a letter.

	10	12	15	20	25	30	35		40	45	50	60	90	100	160
<b>A</b>	.0012	.0017	.002	.0025	.003	.0038	.0044	<b>A</b>	.005	.0056	.006	.0075	.011	.0125	.02
<b>B</b>	.0025	.0033	.004	.005	.006	.0075	.009	<b>B</b>	.010	.011	.012	.015	.022	.025	.04
<b>C</b>	.004	.005	.006	.008	.009	.011	.013	<b>C</b>	.015	.017	.019	.022	.034	.038	.06
<b>D</b>	.005	.007	.008	.010	.012	.015	.017	<b>D</b>	.02	.022	.025	.03	.045	.05	.08
<b>E</b>	.008	.010	.011	.015	.02	.022	.026	<b>E</b>	.03	.034	.038	.045	.07	.075	.12
<b>F</b>	.010	.013	.015	.02	.025	.03	.035	<b>F</b>	.04	.045	.05	.06	.09	.1	.16
<b>G</b>	.015	.020	.022	.03	.04	.045	.05	<b>G</b>	.06	.07	.075	.09	.14	.15	.24
<b>H</b>	.02	.027	.030	.04	.05	.06	.07	<b>H</b>	.08	.09	.10	.12	.18	.2	.32
<b>J</b>	.03	.04	.045	.06	.08	.09	.10	<b>J</b>	.12	.14	.15	.18	.27	.3	.48
<b>K</b>	.04	.05	.06	.08	.10	.12	.14	<b>K</b>	.16	.18	.2	.24	.36	.4	.64
<b>L</b>	.06	.08	.09	.12	.15	.18	.21	<b>L</b>	.24	.27	.3	.36	.54	.6	.96
<b>M</b>	.08	.11	.12	.16	.2	.24	.28	<b>M</b>	.32	.36	.4	.48	.72	.8	1.3
<b>N</b>	.12	.16	.18	.24	.3	.36	.42	<b>N</b>	.48	.54	6	.72	1.1	1.2	1.9
<b>P</b>	.16	.21	.24	.32	.4	.5	.56	<b>P</b>	.64	.72	.8	1.0	1.4	1.6	2.6
<b>Q</b>	.24	.32	.36	.5	.6	.7	.84	<b>Q</b>	.96	1.1	1.2	1.4	2.2	2.4	3.8
<b>R</b>	.32	.42	.48	.6	.8	1.0	1.1	<b>R</b>	1.3	1.4	1.6	1.9	2.9	3.2	5.1
<b>S</b>	.49	.64	.7	1.0	1.2	1.4	1.7	<b>S</b>	1.9	2.2	2.4	2.9	4.3	4.8	7.7
<b>T</b>	.64	.85	1.0	1.3	1.6	1.9	2.2	<b>T</b>	2.6	2.9	3.2	3.8	5.8	6.4	10.2
<b>U</b>	1.0	1.3	1.4	2.	2.4	2.9	3.3	<b>U</b>	3.8	4.3	4.8	5.8	8.6	9.6	15.4
<b>V</b>	1.5	1.9	2.2	3-	3.6	4.3	5.0	<b>V</b>	5.8	6.5	7.2	8.6	13.0	14.4	23.0
<b>W</b>	2.0	2.6	2.9	4-	4.8	5.8	6.-	<b>W</b>	7.7	8.6	10.0	11.5	17.3	19.	30.5

FIG. 3. TABLE OF EXPOSURES, IN SECONDS, FOR F/8, U. S. No. 4

Turning to Figure 3, the letters will be found in the left-hand vertical column and the numbers in a horizontal line at the top. Locate the letter and number just found and at the intersection of the line with the column will be found the correct exposure for a lens working at f/8, U. S. No. 4. These exposures, unlike those in the first Round Robin Guild Exposure-Guide, are given in decimal form and will be preferred by many, especially when shutters are used, which give such exposures as 1/100, 1/50, 1/25, 1/5, 1/2 and 1, as the decimal

values may be easily approximated by these speeds with the iris diaphragm as an additional aid.

An example would probably clear up any hazy points, and the following conditions may be assumed: November, 2.20 P.M.; dull day; landscape with heavy foreground or a building with trees about it occupying most of the picture. In Figure 1 find November in the left-hand column and 2 to 3 P.M. at the top. At the intersection of vertical and horizontal columns will be found 90. In Figure 2 find the

proper line for landscape with heavy foreground and the column for dull weather. At the intersection will be found the letter N. Referring to Figure 3, 90 is found on the top line and N in the left-hand column, and at the intersection will be found 1.1, which is the required exposure in seconds for the given conditions when a plate listed in Class 1 is used. A plate in Class 4 would require four times the exposure, or 4.4 seconds; Class 8, eight times, etc. The usual variation must, also, be made for any stop other than U. S. 4; i.e., doubled for No. 8 stop, four times for No. 16, eight times for No. 32, etc.

If any reader uses a stop other than No. 4 for most of his work it might be convenient to make a special table for reference. To do this it would be necessary only to multiply the numbers in Figure 3 by the proper ratio.

Where a building is surrounded by trees, which cut off the light more or less, the exposure in the above example must be multiplied by two, three or four, according to the amount of shadow. Objects

in the shade require about four times as much exposure as when in sunlight. The writer has prepared his exposure-table in a small pocket-book, 4 x 6 inches, ruled with lines, making small squares in which he also keeps a record of exposures. Thus when a plate does not come up to standard the exposure is studied and a lesson learned. He has also pasted the table of plate-speeds from *The Round Robin Guild Exposure-Guide* inside the cover of the book.

If the beginner uses this table constantly, and takes pains to select the proper conditions from the table, it will probably surprise him to see what fine negatives he gets. Very distant landscapes will need a little more developing in the tank than ordinary views, as they receive very short exposure to prevent flatness, so that with a longer development the contrast will be increased. If the strength of the developer calls for a developing-time of twenty minutes or one hour this will be suitable for ordinary views, but should be increased for very long-distance views.



THE TOW

C. C. TAYLOR

SIXTH AMERICAN PHOTOGRAPHIC SALON



FLOWER-STUDY  
MILES C. NICHOLS  
SIXTH AMERICAN PHOTOGRAPHIC SALON



## EDITORIAL

### Pictures of the North Pole

A STRANGE feature of the lecturing-campaign of Dr. Frederick A. Cook, the unsuccessful claimant to the discovery of the North Pole, was a number of stereopticon-views purporting to illustrate the conditions of the pole at the supreme moment of discovery. The editor was forced into sympathy with Dr. Cook by the tactless and discourteous attitude of his quondam rival, Commander Peary, and, consequently, attended his lecture given in Boston last October. He was amazed when Dr. Cook showed a picture — alleged to be a lantern-slide direct from a negative taken on the spot — displaying the figure of the explorer, and a large American flag planted upon the much-longed-for spot at the top of the earth. The picture was, obviously, considerably worked up, and persons familiar with the possibilities of photographic manipulation accepted it as an example of unparalleled audacity. Of course, one expected that the press would notice this particular picture — the crux of the entire lecture — but nothing appeared in the nature of critical comment. Not until the middle of December last was it pointed out that this really was a cleverly-fabricated picture of the North Pole. Although faked photographs are reproduced frequently in the public press, for some unknown reason the vigilant eye of the press-reporter failed to detect this the weakest spot in Dr. Cook's lecture, which latter appears to have netted the Münchhausen of polar research a large fortune.

### The Silent Partner

A SINGULAR feature of what is carelessly termed "amateur photography" is the omission by the originator of a photograph to give credit to him who was party to the finished print. Millions of prints are turned out, annually, by photo-finishingers who do every bit of the

real photographic work — from the development of the film or plate to the finished picture. All that the supposed amateur does is to point and snap the camera — a task which, except under unusual conditions, requires no marked ability. Numerous are the instances in which intelligent messenger-boys without any camera experience, whatever, have been sent with an equipment to secure pictures of certain objects and have returned entirely successful. Yet it would be stretching a point to regard these errand-boys as amateur photographers. To pose as such, however, a person, after having made the exposure, must develop the plate or film — tank-development preferred — and make the required prints — all without any material assistance. In case the print is to be in carbon, ozobrome, gum or bromide — which the amateur cannot, himself, conveniently produce — he is justified to employ the skill of a professional printer. If the work is satisfactory, is there any reason why the collaborator should not enjoy the privilege of appearing as joint author of the finished product? If not, then there is still greater reason why the photo-finisher should be recognized together with the snap-shutter as author of the completed picture. If the former dissents from this view, he is not acting fairly — he is simply sailing under false colors.

### A Mark of Appreciation

A MONG the obligations incurred by the former proprietors of PHOTO-ERA were subscriptions to an expensive publication which was never even begun. The sums received for subscriptions to the contemplated work ranged from \$10.00 to \$15.00 or more, and, while the new publisher was not in the least obliged to recognize these canceled obligations, he saw fit to extend to their holders a subscription to PHOTO-ERA in duration equal to each individual loss. Each recipient at

once expressed his gratitude for what he kindly termed "a quite unlooked-for courtesy."

The tables are now being turned on the publisher; for he has recently received a number of letters, accompanied by cheques covering subscriptions to PHOTO-ERA for one year — and in one case for two years — of which this is a specimen: "I have enjoyed your excellent publication these past two years entirely free of expense to me, but have not the heart to continue to receive it in that manner. I therefore take pleasure in enclosing my cheque for three dollars for two years' subscription for what I consider, without exception, the finest photographic magazine published to-day."

### Progress of Kinematography

**I**N our last issue we expressed the hope that Kinemacolor, or the Urban-Smith motion-picture process in natural colors, might be exploited for the benefit of the American public. We are glad to announce that the process has been acquired for America by the Motion-Picture Patents Company, of New York. We understand that this firm is in a much better position even than a theater magnate with twice the capital to attend to the manifold details of this new enterprise. On account of the necessarily great expense, motion-pictures in natural colors will be a luxury that can be afforded by few of the cheaper motion-picture houses — thank the Lord! It requires intelligent and capable operators to do it justice, and these are not usually found in second-class show-places.

Every lover of kinematography will rejoice that a new era has arrived in this important class of entertainment. It is high time, for it was being rapidly degraded. But there is still room for further improvement, noticeably in the number of pictures taken and projected, which now averages only sixteen per second! For this reason, human beings, animals, vehicles, water-craft and other objects, which move in a direction approximately parallel to the plane of the picture are annoyingly blurred, whereas objects approaching, or receding from, the point of sight (the camera) are

generally well defined, except when they leave the field of sharp focus. For instance, a person standing in the foreground or middle-distance will appear quite sharp; but the instant he begins to move away, however slowly — except in a direction parallel with the axis of the lens and then only within the limits of the focal planes — his appearance loses distinctness of form and detail. Fortunately, this feature is not impossible of improvement. It is merely a matter of increasing the number of exposures and, consequently, the amount of film per second, which, however, augments the cost of the ultimate result — the positive film ready for projection; but second-class purveyors are generally not eager to provide their patrons with the best products of kinematography, so long as they continue to endure the rubbish now being shown.

### Amateur Photography as a Business

**T**HE term "amateur photographer," in its liberal interpretation, means a practitioner who does not depend entirely or even largely upon the practice of photography as his one source of revenue. Nevertheless, he who makes it his only business, puts out advertising-matter and, to all intents and purposes, is a professional photographer, should not, as is frequently done, issue a letter-head or other printed matter like the following: "Henry H. Brackett. Amateur Photography. Post-cards a specialty. Prices: Post-Cards of Landscapes, 60 cents per dozen. Original Photograph Post-Cards, 80 cents per dozen. Terms — cash. Outdoor-Groups a Specialty. Printing and Developing at Moderate Prices."

The above conveys the impression that the practitioner offers an excuse for possibly inferior work; meaning thereby that his output should not be expected to be as good as regular professional work, and hoping that the public will excuse his lack of technical skill on the ground that he is only an "amateur photographer." Such methods are not legitimate, and are no credit to those who practise them.

# THE CRUCIBLE

A MONTHLY DIGEST OF FACTS FOR PRACTICAL WORKERS

*With Reviews of Foreign Progress and Investigation*

Conducted by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department  
Address all such communications to Phil M. Riley, 383 Boylston Street, Boston

## New Methods of Trichromatic Reproduction

No up-to-date photo-engraver anxious to give his patrons the benefit of the latest improved methods of reproduction can afford to miss reading "Dry-Plates and Color-Filters for Trichromatic Work," by R. James Wallace, director of the research laboratory conducted by the G. Cramer Dry-Plate Co., St. Louis, Mo. Although it will be sent to any interested person for the asking, this little booklet contains a wealth of information which no individual could otherwise secure, even by the expenditure of much money. It represents the cream of Mr. Wallace's researches and many years' experience in this line of work, together with the result of recent achievements made in the Cramer factories. There has been much need of investigation in processes of reproduction, and we congratulate the Cramer forces upon being the first to do so seriously. In this latest booklet the whole theory of trichromatic reproduction is explained in simple language so that all who read may understand. Single and three-plate methods and the comparative merits of wet and dry-plates are gone into thoroughly, as is also the matter of tricolor filters, their position and absorption, screen-distance, diaphragm and camera-extension, exposure, taking and printing-colors, development and after-treatment. Valuable suggestions are presented on every point, particular attention being directed to the new Cramer plates suited to the requirements of this line of work; but let me quote Mr. Wallace:

"For several years past various authorities in trichromatic practice have advocated the entire elimination of the wet-plate from the process — first, because of the great uncertainty attendant upon the use of the silver-bath; and, second, because of the inevitably messy nature of the process. This agitation resulted in the introduction of collodion-emulsion and special color-sensitizers; but, while the emulsion was capable of giving good results, yet the troubles of the operator were apparently rather increased than lessened.

"In the handling of gelatine dry-plates prepared by the manufacturer it is unquestionably true that we have the minimum of trouble in the preparation of a negative, but the quality of negative necessary to give a reliable printing-plate has for many years been apparently impossible of attainment. The considerably thicker

film resulting from the employment of gelatine, and the coarse and 'fluffy' nature of the dot, together with the lack of transparency between, presented a combination of circumstances which precluded sharp metal prints; consequently, the photographer and engraver together united in condemning the dry-plate process as being unsuitable.

"It is a matter of common knowledge, however, that the history of the progress of any process is marked by the fact that what spells failure under one set of conditions reads success under another. So it is with dry-plate screen-negatives; for the G. Cramer Dry-Plate Company, of St. Louis, has, by the result of a considerable amount of research-work, finally succeeded in the preparation of plates for this purpose which leave but little to be desired.

"In all high-speed heavily-coated dry-plates the conditions are such that the narrow beam of light which forms the dot in the half-tone negative is reflected from the large grain-particles of silver bromide, and falls upon the adjoining grains which occupy the spaces between the dots. It is well known that it is only necessary for the smallest portion of such grain to be affected to cause the entire particle to blacken during the course of development. This narrow beam reflected and re-reflected at innumerable angles affects the maximum number of grains, and hence the resultant negative is dull and foggy in appearance. It is now known, first, that the finer the grain of an emulsion the less is this reflection, or, as it is technically termed, *irradiation*, and, second, that a thin film is also very beneficial.

"In these new Cramer process-plates the grain is of exceptional fineness and the coating extremely thin. This thinness of film, however, does not mean 'thin' negative, because the emulsion has been so handled in the course of manufacture that it possesses a remarkable density-giving power, an imperative condition for successful screen-plate work.

"The introduction of Cramer's new 'Spectrum' and 'Spectrum-Process' plates marks a new era in the production of red-sensitive or 'panchromatic' plates; for, while it has hitherto been comparatively easy to produce a high red-sensitivity by 'bathing'-methods (a messy, troublesome and uncertain process), yet the production of such by the incorporation of the dyestuff with the emulsion during the process of manufacture has not been hitherto attainable.

So great is the sensitiveness-extent of these new plates that 7,000 can be photographed with ease, and the use of it in tricolor-work obviously means not only an increase in power towards the rendering of the deeper reds, but also an increase of rapidity in the production of the red-sensation negative.

"The 'Spectrum-Process' plate is possessed of absolutely identical sensitiveness-extent as the 'Spectrum,' the only difference between them being that the former is a plate working with much more contrast than the latter; so that while the 'Spectrum' is suitable for the 'indirect' method, the 'Spectrum-Process' is intended for those workers who are engaged in the 'direct' process. For this latter work the 'Process' is coated with exceptional thinness, the film measuring only about .0005 of an inch. Besides this, its particularly fine grain gives it a most desirable quality.

"Of Cramer's 'Isochromatic' and 'Iso-Process' plates, the former (the highest type of 'iso' or 'ortho' plate manufactured) is too well and favorably known to require extended mention here, and the latter possesses a sensitiveness-curve identical with it; and all that need be added is that the 'Iso-Process' is also coated thin and has equal fineness of grain with the 'Spectrum-Process.'

"For indirect tricolor-work the 'Instantaneous Iso' is recommended; while, for direct, the 'Iso-Process.'

"Cramer's 'Contrast-Process' plates are recommended for use in 'direct' reproduction-work in black and white; also, for the making of the half-tone negative-set by the 'indirect' method. The plate possesses identity of film-coating with the 'Spectrum-Process' and 'Iso-Process,' and is guaranteed to work clean and crisp when properly handled — a fact which is attested by the many workers now using them. The sensitiveness of the plate corresponds precisely to that of the ordinary — non-isochromatic — plate."

### A New Developer for Gaslight Paper

THE makers of Kruxo papers have issued the formula for an excellent new developer giving pure black tones. More detail will be obtained when printing from strong contrasty negatives if forty ounces of water are used instead of twenty ounces. Prints from negatives of extreme contrast will show more detail if this developer is mixed with sixty ounces of water. By varying the quantity of water used, the developer can be regulated so as to produce the best results on any negative, whether it be hard or soft.

#### KRUXO H-E-M DEVELOPER

Water .....	20	ounces
Acetone sulphite .....	20	grains
Sodium sulphite, dry .....	½	ounce
Hydroquinone .....	20	grains
Edinol .....	15	"
Metal .....	15	"
Sodium carbonate, dry .....	½	ounce
Potassium bromide, sat. solution .....	24	drops

### A Bath-Tub Print-Washer

R. E. DAWSON describes a convenient, home-made device which he has found inexpensive and efficient in washing prints. The articles necessary for its construction are an ordinary tin funnel about six inches in height and a cork of the proper size to fit into a bath-tub drain.



The perforations around the top of the funnel are made about one-quarter of an inch in diameter, and placed about half or three-quarters of an inch below the rim and about the same distance apart. (It might be well to suggest in making these perforations to puncture from the outside, so there may be no burr edges to scratch the prints in case they happen to come in contact with the funnel.) The small end of the funnel is then inserted tightly into the perforation made in the center of the cork, and is ready for use. A short piece of rubber hose should be attached from the faucet to extend into the bottom of the tub to prevent splashing, and the water should be turned on with sufficient force to keep the prints constantly in motion — the running water remains at a depth of only a few inches of level with the overflow-perforations at the top of the funnel. The funnel may also be used in a wash-bowl, bath-tub or sink, as may be most convenient for the operator. In this manner the prints may be thoroughly washed without rehandling.

### Copying a Faded Print

A MEANS of copying a print which had faded to a sickly yellow color was suggested to the writer recently, and proved very satisfactory; a brief note as to the method may be of value to others.

A piece of blue glass was obtained from a glazier; it was of the palest tint made, a sort of Cambridge blue diluted fifty per cent, and the yellow print was squeezed in optical contact with it; after being thoroughly dried, the glass was set up in such a position that all reflections were avoided, a tissue-paper screen being required in one direction.

The plate used was an isochromatic, of well-known make, and a full exposure was given with a small stop.

On developing in pyro-soda it was found that the blue glass had emphasized the details of the yellow print and had rendered them far more distinct; thus the copy was a great improvement on the original, and instead of appearing dead and flat, as so many ordinary copies of photographs do, this one was quite brisk.—*The Amateur Photographer*.

### A Mercury-Hypo Toner

SEVERAL of the toning-processes employed to produce warm tones on bromide and gaslight prints tend to intensify, so that prints which are weak or too light may often be toned with benefit. In *The Amateur Photographer* for October 26 Mr. C. W. Butler suggests the use of mercury and hypo in this work.

After the prints have been thoroughly fixed and washed they are bleached in artificial light as if they were to be intensified by immersion in:

Water ..... 10 ounces  
Mercuric chloride ..... 3 drams  
Potassium bromide ..... 2 drams

Rocking of the tray is essential to ensure even action.

The image will soon apparently disappear and the paper seem quite bleached. Remove the prints and wash in five or six changes of water, saving the bleaching-lath for another time.

Then tone in:

Water ..... 10 ounces  
Hypo ..... 1 ounce

Each print should be immersed separately. The prints quickly become brown and in about five minutes a good sepia-black. If full bleaching is not allowed to take place the tone may be varied to a certain extent, while less intensification results from the use of a stronger solution of hypo.

### Hints on Seascapes

Dominating all sea-pictures one finds the horizontal composition, and its severity should be broken, however slightly, by a ship, a distant sail or the trail of smoke from a steamer on the horizon. Vastness of space is essential to the true feeling in seascapes, and so overcrowding must be avoided. Startling skies should accompany only stormy seas, as the ordinary repose of a smooth sea is ruined by them. In other words, sea and sky should be treated as parts of a whole, not separately.

### Night Photography

HALATION, says *The Photographic Monthly*, must be avoided, not only by backing the plate, but by arranging the subject. Strong electric or gas light must not appear unshaded in the foreground. Some object — a tree, fountain, or monument — can often be interposed between the light and the lens.

Subjects such as lighthouses, and others where a beam of light strikes across the view, should be attempted on a misty night, to ensure the light standing out well.

Night pictures, according to Ellis Kelsey, who, in a practical way, has made himself an authority on this branch of photography, require a backed isochromatic plate, a lens working at f/6, and a tripod-camera preferably scaled for placing the lens at "fixed focus." With iso plates of "ordinary" rapidity exposures are roughly as follows:

	Exposure at f/6
Street-scenes after dark, with strong light (screened) in the foreground .....	4 minutes
The same at twilight .....	$\frac{1}{2}$ -2 "
Piers from the shore (lamps and moonlight) .....	10-15 "
Illuminated gardens (Chinese lanterns, etc.) .....	10-15 "
Lighted buildings: streets outside poorly lighted .....	20-30 "
Twilight sky (afterglow) .....	10-12 seconds

Passing lights cause a streak of light on the negative, and therefore the lens must be screened whenever a vehicle enters the field of view. The best means of thus shielding the plate is a piece of black card held in front of the lens. The greatest care must be taken not to move the camera.

### Abrasion of Gaslight Prints

OCCASIONALLY when extreme friction has been applied to the surface of the paper previous to development abrasion-marks may appear, and as it is both aggravating and expensive to discard prints on account of these markings, we give a remedy should they appear. Vignette prints and plain margin prints are where friction-marks are most apt to appear.

After fixing and washing prints thoroughly, immerse in a solution made as follows:

Water ..... 32 ounces  
Potassium iodide (crystals) ..... 15 grains  
Iodine (crystals) ..... 2 "

When the high-lights of the prints begin to take on a slight blue color transfer without rinsing to the following weak hypo solution:

Water ..... 32 ounces  
Hypo .....  $\frac{1}{2}$  ounce

Allow the prints to remain in the hypo solution until both the blue color and abrasion-marks disappear, which will require about one minute. Wash the prints again to remove the hypo.

Prolonged immersion in either the iodide or hypo solution should be avoided, as it will cause the prints to become lighter.

If the abrasion-marks are not entirely removed with one treatment the operation can be repeated, always being sure that the prints are free from hypo when placed in the iodide solution.—*Artura Bulletin*.

# THE ROUND ROBIN GUILD

*An Association of Amateur Photographers*

Conducted by ELIZABETH FLINT WADE

This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography, although advanced camerists are just as welcome and many are numbered among its members. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free and may be obtained by sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston.

Send a stamp for complete prospectus.

## Qualities of Developing-Papers

DEVELOPING-PAPERS are divided into two classes: slow-printing and fast-printing papers. Each class of paper has a variety of textures and surfaces. There are several weights of paper — from the light paper, which requires a heavy mount, to the heavy paper which requires no mount at all. The surface of the papers runs from very smooth to very rough.

The slow-printing papers are adapted to negatives which are lacking in contrast. In this class is a paper which is semi-glossy and gives prints of much merit from flat negatives which on other papers — especially the printing-out papers — would not be worth making. The slow papers are specially good for flat negatives if one chooses what is called the Velvet surface. This seems to be specially adapted to a negative lacking in contrast and produces a very pleasing print.

In the fast papers the velvet paper seems to have the greatest range, being adapted to almost any kind of negatives except those with too little contrast.

One of the developing-papers is coated on a soft, cream-tinted paper which, when a good negative is used and the print re-developed, gives the effect of an old engraving mellowed by time to a yellowish and very pleasing tone. A landscape-negative with fine detail, when printed on this cream-tinted paper, produces a specially artistic print.

For portrait-work where the detail is soft and there are no strong high-lights the very rough paper in what is called "double-weight" is a fine grade to use. The paper should be enough larger than the negative to allow of at least an inch of margin all around the print. Two inches is better than one, if one can afford the paper. The picture is then printed behind a cut-out, its position on the paper being nearer the top than the bottom. Do not print too deeply; develop rather slowly and the effect will be very much like a charcoal-drawing. This is one of the most satisfactory developing-papers for portrait-work where the detail is not too sharp.

The question is often asked the editor if enlargements and Ozobromes can be made on developing-papers. They can, but they are never as satisfactory, nor is one so sure of good results,

as when using the bromide paper which is specially designed for this sort of work. For Ozobrome, especially, one needs to use the bromide paper, the gaslight papers not always taking the after-manipulation successfully, while with the bromide there is little danger of failure if one follows directions carefully.

One may make contact-prints on bromide paper, as well as enlargements. The paper is faster than the regular gaslight paper, so the exposure must be decreased accordingly. For the amateur with little time for daylight printing the developing-papers are a great boon; and now that one may make prints in both grays and sepias, one can obtain almost as much variety in one's prints as in the printing-out papers, and have as great a variety of surfaces and textures.

## Gum-Prints

A GREAT deal has been written about the gum-print, but most of the directions and explanations make the process appear too difficult for the average amateur to undertake. This most fascinating of printing-mediums is not nearly so difficult of accomplishment as one is led to believe by reading the articles designed to instruct one in attaining proficiency in the art.

One great reason why the amateur fails in his attempts at something out of the ordinary in photography is because he wants his first trials to be every bit as good as the work of one who is trained by long practice.

One should be willing to start at the beginning and count his defeat or failure simply as a stepping-stone to success. It is only in this way that one can hope to progress in any art or craft or science.

The amateur desiring to do something worth while in photographic printing should try the occasional sensitizing of his printing-papers, and he will find no method which gives greater variety or more interesting results than the gum-print.

The texture of the paper has much to do with the finish of the print. A rough paper will not take the sensitizing-solution evenly unless it is sized previous to coating it with the gumbichromate solution. A rough paper, however, is the one to choose for negatives which are not fine in detail, but which are in broad masses of light and shade, such as portraits of soft focus, landscapes and waterscapes which are not made

THIRD  
PRIZE  
GLIMPSES OF  
FOREIGN LANDS



STREET IN PISA, ITALY

A. F. FRANCE

with a sharp focus. The papers which the editor has found most satisfactory in the rough texture are the Whatman's papers and the Michallet. Whatman papers require sizing, but the Michallet papers may be used without if one takes pains to brush the gum-bichromate solution well into the depressions of the paper. For the negatives of fine detail and with soft lights and shadows, the Allonge paper cannot be excelled. This paper can be bought in both cream and white, the cream tint being very attractive for warm sepia and red tones. The coating of the paper must be applied evenly and quickly, and a soft "mop" brush will be found the best for applying the solution, and a badger blender will be the best for spreading the coating evenly. The "blender" is a thin flat brush mounted in such a way that the hair, instead of coming to a point when wet, remains spread apart, so that the strokes made with it are something like strokes

made with a broom when one is sweeping.

The paints to use are the moist water-colors which come in tubes and can be squeezed out on the palette or the dish in which the solution is mixed. The beginner will get better results by using the transparent colors for his first attempts. The opaque colors are likely to give a muddy look to the print — to make it look "smudgy" — this condition being due to the solution having too much of the pigment in it and its not being evenly spread over the paper. The reds and blues are transparent, mix readily with the gum and the coating is uniform if any sort of care is taken in applying the solution.

The proportions of gum and bichromate of potash are as follows: Have your dealer make a saturated solution of bichromate of potash. This is the stock-solution and must be kept tightly corked and in a dark place or wrapped in black needle-paper. The gum is prepared by dissolving

SECOND  
PRIZE  
GLIMPSES OF  
FOREIGN LANDS



THE BRIDGE OF SIGHTS, VENICE

ROBERT E. WEEKS

one ounce of pure gum arabic in two ounces of water and when dissolved, straining through a piece of cheese-cloth. Two ounces of gum arabic and four ounces of hot water will be enough to prepare at a time. Gum-arabic solution is likely to sour if kept very long, and when it sours it becomes thin and unfit for use. The gum arabic should be dissolved in hot water, and strained when hot.

For the red coating take crimson lake, Venetian red and vermillion. Squeeze a little of the paint from each tube, add a few drops of the gum-arabic solution and mix the paints thoroughly. The proportion of the paints is largely a matter of guesswork. For two ounces of the gum-bichromate solution use as much paint as could be squeezed onto the area of a nickel. The amount of each is to be determined by the taste of the amateur, mixing the paints until one gets a shade that pleases him.

Having mixed the pigments thoroughly, take an ounce each of the gum-arabic and the bichromate of potash solutions, using a china dish three or four inches in diameter, such as is used by water-color painters. These low, round dishes are the most convenient to use, because they are rounding and one can use all the solution to the last drop, the depression allowing the liquid always to collect in close quarters where it is readily taken up by the brush. When the two solutions are well blended add the pigment, a little at a time, until enough has been added to make a medium coating when spread on the paper.

Do not attempt to coat too large sheets of paper until expert in applying the solution. Take pieces of paper which will allow for two-inch margins above the size of the negatives to be used. Attach the paper to a piece of smooth board by means of artist's thumb-tacks. Dip the "mop"



BEGGARS OF PERUGIA

WILLIAM H. PHILLIPS

FIRST PRIZE — GLIMPSES OF FOREIGN LANDS COMPETITION



brush — which may be either a badger or camel's hair — into the solution, draw the brush over the edge of the dish gently to remove the solution so it will not drip, then brush it quickly and evenly over the paper. Do not try to do more than just spread it hastily, but take more of the liquid and cover all of the surface as speedily as possible. Now take the badger blender and draw it lightly over the paper, first one way and then another, until the coating seems evenly and smoothly applied; remove from the board and pin up in a dark room to dry. The coating may be applied by daylight as the paper is not sensitive to light until it has been dried.

The knack of applying the solution evenly is in the use of the badger blender. This is the only brush which will ensure an even coating in the hands of an amateur who is unskilled in the use of brushes. In the hands of an artist who understands the handling of brushes other brushes could be used.

In mixing the pigment with the gum and bichromate one should try the color on a piece of paper now and then, so as not only to examine the shade, but also to determine when enough of the pigment has been added. Too little of the pigment will make a faded-looking print; too much will make a muddy, dull print.

As soon as the paper is dry it is ready for printing. It is exposed to the sunlight the same as any printing-out paper and is examined from time to time to observe the progress of the printing. When the image is fairly well defined the picture is taken from the frame and placed face down on the surface of the water, using a porcelain tray filled with water of a temperature of 65° or 70°.

As soon as the print is wet turn it face up. Watch it closely, and as soon as the development has gone far enough remove it from the water, lay it face up on a sheet of glass and brush over the surface with a mop brush dipped in water; drain and pin up to dry. Development must not be carried too far, but the moment the right depth of tone has been reached the print is taken from the water, brushed over lightly and dried.

This is the simple way of making a gum-print, and is the only way which the beginner should attempt. This experimental print will be a guide for further work, and it is a good plan to sensitize only three or four pieces of paper at a time, so that if the results are not satisfactory the mistakes can be corrected in the next trial.

For the first printings use a portrait-negative which has no very strong high-lights nor very deep shadows, as in using a negative with sharp contrasts one needs to do more or less brush-work on the print in order to have pleasing half-tones and soft shadows.

There is no after-manipulation, the development in water and the drying being all that comprises the simple process of finishing the print.

When one has become somewhat proficient in coating the paper with the transparent colors and making a satisfactory print in that way the

next step is to try brush-work on the print. In this way one may remove from a print all the detail which is not desired in the picture, clearing up the high-lights, lightening the shadows and softening harsh outlines; in fact, he has perfect control over the print as far as the process of elimination goes, and this modifying of the print is what makes the gum-bichromate process so very interesting and so very fascinating also.

After one has become somewhat expert in the coating of the paper with transparent colors and working on the print with a brush, then it is time to begin with opaque colors. In the next numbers will be given a list of colors for use in gum-bichromate printing, and the proper colors to combine to produce certain tones and shades. In the grays one may get the effect of a charcoal drawing, when a rough paper is used and a negative of well-defined image and good shadows, the brush-work on the print helping out the impression.

The reason for not giving the directions in this article is because the Editor does not wish the beginner to start at the top. Beginning with the simple print, as directed, one advances so unconsciously that before he realizes it he is well on his way to become master of this most interesting of photographic printing-processes.

## BEGINNER'S COLUMN

### Quarterly Contests for Beginners

*In these contests all Guild members are eligible EXCEPT those who have received Guild prizes in the past. Aside from this restriction, the rules which govern the monthly competitions will be in force here and the prizes will be payable in the same manner.*

All prints submitted, except prize-winners, will be returned if postage is sent.

#### PRIZES

*First Prize:* Value \$10.00.

*Second Prize:* Value \$5.00.

*Third Prize:* Value \$2.50.

*Honorable Mention:* Those whose work is worthy will be given Honorable Mention.

#### Subjects for Competition

SNOW-PICTURES — CLOSES APRIL 15, 1910

Here is presented a very wide field, so that nearly every camerist may enter one print, at least. The pictures may be snow-covered landscapes in all conditions of weather, park-scenes, outdoor sports on the snow or ice and a variety of other subjects, including human life or not.

SOUVENIR-PHOTOGRAPHS — CLOSES JULY 15, 1910

It is intended that this competition shall include photographs made as souvenirs while away from home, whether in one's own country or abroad, or only on a short vacation-trip. Thus they will portray objects of historic or other interest, and incidents worthy to be recorded. Figures may or may not be included.



LITTLE WOOD-GATHERERS  
RICHARD PERTUCH

GOING TO MARKET, NAPLES, ITALY  
AGNES H. ROOP

HONORABLE MENTION — GLIMPSES OF FOREIGN LANDS COMPETITION



## The Round Robin Guild Monthly Competitions

Closing the last day of every month.

Address all prints for competition to PHOTO-ERA, The Round Robin Guild Competition, 383 Boylston Street, Boston.

### Prizes

*First Prize: Value \$10.00.*

*Second Prize: Value \$5.00.*

*Third Prize: Value \$2.50.*

*Honorable Mention:* Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention.

Prizes may be chosen by the winner, and will be awarded in books, magazines, enlargements, mounts, photographic materials or any article of a photographic or art nature which can be bought for the amount of the prize won.

### Rules

1. These competitions are free and open to all photographers, whether or not subscribers to PHOTO-ERA.

2. As many prints as desired, in any medium except blue-print, may be entered, but they must represent the unaided work of the competitor, and must be artistically mounted.

3. The right is reserved to withhold from the competitions all prints not up to the PHOTO-ERA standard.

4. A package of prints will not be considered eligible unless accompanied by return postage at the rate of one cent for each two ounces or fraction.

5. Each print entered must bear the maker's name, address, Guild number, the title of the picture and the name of the competition for which it is intended, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.

6. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA. If suitable, they will be reproduced, full credit in each case being given to the maker.

### Subjects for Competition

February — "Decorative Treatment of Trees." Closes March 31.

March — "The Seasons." Closes April 30.

April — "Downhill Perspective." Closes May 31.

May — "Sunlight and Shadow." Closes June 30.

June — "Landscapes with Figures." Closes July 31.

July — "Marines." Closes August 31.

August — "In the Country." Closes September 30.

September — "General." Closes October 31.

### Awards — Glimpses of Foreign Lands

*First Prize:* Wm. H. Phillips.

*Second Prize:* Robert E. Weeks.

*Third Prize:* A. F. France.

*Honorable Mention:* Richard Pertuch, Gust Horlin, Oswald Rothmaler, Agnes H. Roop, Florence V. McLean.

Meritorious work was submitted by Miss Hedwig Rohn, O. Zernickow, Harry D. Williar, Wm. S. Mayer, H. S. Redfield, E. W. Long, Jessie B. Dixon and Walter J. McFeat.

### The Beginner's Camera

The first problem which confronts the beginner in photographic work is to decide what sort of a camera to buy. Unfortunately, perhaps, there is no Hobson's choice. If there were, no time nor trouble would be required, but one would simply buy the camera and begin his studies in the art.

Most beginners know comparatively little about optics and few have much art-training; consequently, if one starts in a too ambitious way he immediately runs into snags and pitfalls. One of our Guilders in France, who had recently joined the Guild and bought a camera, wrote in his quaint English to the Guild Editor in November last:

"I have but last month a camera bought and I am already in front of many difficulties."

Our French member's experience is the experience of most of us when we begin our photographic career. We find ourselves at once in "front of many difficulties." Much observation of the first attempts at photographic work has led me to believe that the cause lies largely in the choice of a camera. One is not only bewildered but also misled by the many alluring advertisements setting forth the merits of different cameras; and more often than not the beginner buys not only as expensive but also as complicated an instrument as he can afford and select, and in his endeavors at once to master the whole art of photography, and at the same time manage all the details of exposure, focusing, etc., makes far more failures than successes.

Doubtless I shall go against all precedent when I advise the beginner to select for his first camera one of the simplest makes and not to have the size of the print exceed  $3\frac{1}{4} \times 4\frac{1}{4}$ . The price of such a camera will not be more than ten dollars, the one which I have in mind costing only eight dollars. This is a box-camera with fixed focus lens, and is not only a very simple instrument but also a thoroughly practical one for general use when one has become an expert picture-maker. It has an automatic shutter for both time and instantaneous exposures. When one has made an exposure the moving of the shutter for the purpose sets it for the next exposure, thus one does not have to think of this part of picture-making. It makes both vertical and horizontal pictures, has two very brilliant finders, and two sockets for tripod-work. This is a film-camera; and though a few years ago

much difficulty was experienced by the beginner with films they are now so perfected that they are as easy for one to manipulate as are the glass plates. Then, too, the films are put up in rolls of four exposures, so one does not have to use twelve films before he can ascertain whether his work is satisfactory.

If one finds difficulty in composing a picture in the small finders he can have a view-finder the size of the picture made by the camera fitted to his instrument and thus see quickly just what objects are comprised within the angle of the lens. A view-attachment is a great addition to one's camera, even if one is expert in the manipulation of it and in composition also of pictures. The price of a view-finder is two or three dollars, and it is well worth the money.

The box-camera is the better choice for the beginner, rather than a folding-camera, though both may cost the same money. With a folding-camera one has always an extra bit of work to perform, while the box-camera is ready for instant use. The weight of the two cameras is about the same, if anything the folding-camera being an ounce or two heavier.

For instantaneous work the box-camera is always ready, all that is necessary to do being to turn the dial and to press the button to reproduce the scene, and with rapidly-moving objects this is of special advantage.

The way for the beginner to use his camera is first to become familiar with the movements necessary to make the exposure before beginning actual work.

With the simple camera just described this is easily mastered, whereas with a camera which requires opening and adjusting to scale, setting of shutter, regulating of diaphragm, etc., it takes some time to become expert in the use of the instrument. Having learned how to manage the instrument, choose for the first pictures simple subjects like short landscape-views, bits of water-scenes, etc. Figure-studies and portraits should be left until one becomes more familiar with time of exposure, composition and general arrangement of the scene photographed. The beginner would do well to look up the articles on composition published in the spring numbers of *PHOTO-ERA* for 1909. They are written very simply, and expressly for the guide of the beginner in photography.

One need not despise his small camera even after he has advanced to much skill in his art. One of these small cameras was taken by an amateur to Africa, and the pictures taken with it were in every respect equal to those taken with a large camera with an expensive lens — a camera which it was a burden to carry and much trouble to manage. From these small films fine enlargements were made and were used as illustrations in some of our leading periodicals. The reason of the success with this small camera was that its owner had thoroughly mastered its use and knew just what to do to secure the best results.

The head of one of the largest manufactures of cameras and photographic apparatus told

the editor of this department that he always took with him on his travels a small box-camera, and the enlargements made from the negatives were really more satisfactory than the prints from negatives of much larger size made direct in the camera. He showed some of these enlargements and proved that his statement was correct.

With these small lenses one gets beautiful detail. A case in point was a negative made with one of the tiniest cameras on the market. It was sent to me for criticism, and I advised an enlargement made from it and submitted in our prize-contest, and it won a prize.

The coming springtime will see many additions to the ranks of amateur photographers, and the question of the purchase of a proper camera will be asked many times. This will be my advice to the beginner always: Buy a small box-camera and begin at the very beginning of picture-making, being willing to learn the A, B, C of photography before attempting to make pictures for the Salon. One can buy for these small cameras a portrait-attachment which enables one to do home-portraiture in a very satisfactory manner, but this should not be attempted at the outset of one's work. We Americans are unlike almost any other nation: we wish our first attempts at anything to be masterpieces or perfection. It is hard for us to learn to make haste slowly; but to make haste slowly is the only way to attain success in any calling, and perhaps most of all in photography.

The question of methods of development will be discussed in our next number, the aim of this column of the Round Robin Guild being to give first aid to the tyro in photography who is anxious to start right and become a master of this most delightful art.

## Answers to Correspondents

*Readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.*

E. L. DEARDORFF.—The cause of the fog on the films which you enclose seems to be from the exposure rather than from the development, as you say the rest of the films developed in the tank at the same time were all right. These two are both fogged in the same place, and evidently a ray of sunshine struck across the lens. Of the developing papers, all have good qualities, the Velox being one of the best. The developing-papers come in all grades from extra rough to smooth, and are sensitized with different emulsions to use with all classes of negatives and also to secure special results. To flatten your prints draw them over the edge of a drawer, the paper-side next to the drawer.

A. G. M.—The reason why your negatives have become granulated after standing some time is because the hypo was not strong enough thoroughly to dissolve out the unused silver salts. Insufficient washing after the hypo-bath is also a cause. The hypo should be as strong as one ounce of hypo to four ounces of water, and even a little stronger would do no harm. Leave the plate in the hypo for three or four minutes after the film is cleared of the silver; then wash thoroughly and you will have no after-troubles of granulation.

A. E. DELANDER.—For a transparent backing to use on a negative on which you wish to work, get tracing-paper of a yellowish cast which is used in tracing or copying embroidery patterns. This paper has no grain, and while, of course, it retards the printing, it also helps to make a most satisfactory print from a weak negative. Another method is to coat the glass side of the negative with matt varnish, which gives a good tooth on which to work with a pencil. The only objection to the varnish is that if the work is not satisfactory the coating has to be removed.

WILLIAM M.—Use a very smooth platinum paper for your landscape-negative with fine detail. Your subject would look better in sepia tones than in the grays, for "Brown October Woods" would not be appropriately rendered in cold grays. I would not advise a developing-paper for this special style of negative. You will have more latitude with the platinum. Ozobrome is not a hard printing-process to master, but the description would be too long for "Answers to Correspondents." Study the directions carefully and go slowly in the work. Do not attempt too much in the beginning. The top of the ladder is not reached by a bound.

MARION B.—Use what are called Solio seconds for making proofs and submitting prints to prospective purchasers. The seconds will cost you one dollar a gross, less than nine cents a dozen, while the regular paper in the same size ( $4 \times 5$ ) will cost you twenty-five cents per dozen. Prints may also be made on this paper for reproduction, as the quality is as good as the regular paper. Seconds are cut from sheets of paper which have passed under the inspector's eye and been found to have some defect either in the spreading of the emulsion, a flaw in the paper, etc., which would injure it for "firsts," but which does not injure the paper materially.

BENJ. G. MOORE.—You will find that the article in this number on "The Beginner's Camera" answers all the questions you have asked in regard to the purchase of a camera. As you purpose traveling later in the season, you should purchase your camera at once and become familiar with it before starting on your trip. You can have your developing done for you as you travel from place to place, or you can take a developing-tank with you, some developing and fixing-powders and develop your own films. It is far more satisfactory to develop the films as they are made than to bring them all home with you. By the former method one knows whether

his pictures are rightly made, and if not can remedy the errors.

M. E. G.—Yes; you can buy what is called a tourist's lantern. It is made of ruby-colored fabric bound in metal frames. It has a metal top and bottom which are easily attached and detached; the lantern is collapsible and folds up into small compass. It is used, of course, with a candle, and costs the small sum of twenty-five cents.

ELEANOR W.—Japanese transparent water-colors are probably what you mean in your inquiry about Japanese paints. These paints work very well on gaslight paper, and for use with glossy paper there is a sizing prepared which is spread on the print before beginning to paint. These colors are transparent and show the shadows through, so that the necessary lights and shadows appear as they would if actually painted. Full directions come for the use of the paints, and the cost of a book of fifteen colors is seventy-five cents.

FRANK L.—You can buy photo-supplies in all of the large cities of Europe, so you need not take them with you unless you prefer to do so. In Milan you can get American supplies at No. 10 Via Vittore Pisano, and in Brussels at No. 36 Rue de l'Ecuyer. Other addresses can be supplied if you desire them, as I judge by your letter you intend to visit other places besides these two of which you wish the addresses.

EMILY D.—Doubtless the trouble in mounting your prints with mounting-tissue was because the iron was not hot enough to melt the tissue, consequently the print did not adhere to the mount evenly. If you follow the directions carefully in regard to the heat of the iron your prints will be very smoothly and nicely mounted.

P. E. S.—Water-Development Platinum is doubtless the paper which you mean. This paper is developed by placing the print in a tray of water until the image has developed clear and strong, then placing it in an acid bath to clear. The proportions of the acid bath are one ounce of the acid to sixty ounces of water. Two or three baths should be used in order to bring out the whites clear. The paper before printing is of a light canary color, and the image shows faintly. The printing is continued until faint detail can be seen in the half-tones. A peculiarity of this paper is that the paper may be exposed to the light for a few minutes under the negative, then placed in a drawer or box and the printing will continue until the image is well defined. This is an advantage when the weather is adverse to outdoor printing.

JOSEPH L.—A film-tank for developing films  $4 \times 5$  in size will cost you anywhere from three to six dollars. Tank-development is becoming more and more popular, and you would not regret purchasing the outfit, for it saves much time and trouble and gives most satisfactory results. A description of the half-tone process is too long to be included in "Answers to Correspondents." It would greatly interest you to visit some establishment where half-tones are made.

In an early number we will print a short article on the process, as many of the Gilders have asked how photographs were reproduced, and what was meant by half-tones.

B. F. G.—If you intend to do a great deal of work with stereoscopic photography it would be worth your while to purchase a regular stereoscopic outfit. The price of one which makes a picture  $2\frac{1}{2} \times 3\frac{1}{4}$  is less than fifteen dollars, and this includes a self-transposing printing-frame, which does away with the cutting apart and transposing of the negatives when making the print. See answer to P. E. S. in regard to Water-Development Platinum.

ANNA GROVES.—You will find a hand-camera, the box style, one of the most convenient for the work which you purpose doing. Do not buy one which takes a square picture. The oblong picture is what you will want in your work; and if you wish larger pictures at any time, enlargements can be made from the small negatives. In the article in this number entitled "The Begin-

ner's Camera" you will find helpful hints on this style of camera recommended for your photographic work.

E. L. R.—By all means get a tripod to use with a view-camera. You would find it next to impossible to obtain good pictures without it. It also saves time, labor and vexation. Attach your lens-cap to a stout thread and the thread to the camera. Then you will not lose nor mislay this very important attachment. While few amateurs now use cap-exposures, the editor is very much in favor of this method for certain pictures, both indoors and out. You would find it much more economical to mix your own developers. You can put the ingredients up in powders ready to dissolve in a certain amount of water, and if wrapped in wax-paper and stored in an air-tight tin or glass can they will keep indefinitely.

E. L. F.—When acetic acid is one of the ingredients of a formula use the "glacial acetic acid." The adjective is sometimes omitted.

## Plate-Speeds for Exposure-Guide on Opposite Page

### Class 1/3

Lumière Sigma  
Lumière Non-Halation Sigma

### Class 1/2

Barnet Super-Speed Ortho

### Class 3/4

Barnet Red Seal  
Imperial Flashlight

### Class 1

American  
Ansco Film, N. C. and Vidil  
Barnet Extra Rapid  
Barnet Ortho Extra Rapid  
Barnet Studio  
Cramer Crown  
Cramer Crown Non-Halation  
Cramer Instantaneous Iso  
Cramer Inst. Iso Non-Halation  
Cramer Isonon  
Cramer Trichromatic  
Ensign Film  
Hammer Special Extra Fast  
Ilford Monarch  
Ilford Zenith  
Imperial Special Sensitive  
Imperial Non-Filter  
Imperial Orthochrome Special

Sensitive  
Kodak N. C. Film  
Kodoid  
Lumière Film  
Magnet  
Premo Film Pack  
Seed Gilt Edge 27

### Standard Imperial Portrait

Standard Polychrome  
Stanley Regular

Vulcan  
Wellington Extra Speedy

### Class 1 1/4

Cramer Banner X  
Cramer Banner X Non-Halation

Eastman Extra Rapid

Hammer Extra Fast

Hammer Extra Fast Ortho

Hammer Non-Halation

Hammer Non-Halation Ortho

Seed 26x

Seed C. Ortho

Seed L. Ortho

Seed Non-Halation

Seed Non-Halation Ortho

Standard Extra

Standard Orthoron

Wellington Speedy

Wellington Film

### Class 1 1/2

Lumière Ortho A

Lumière Ortho B

### Class 2

Cramer Medium Iso

Cramer Medium Iso Non-Halation

Ilford Rapid Chromatic

Ilford Special Rapid

Imperial Special Rapid

Wellington Iso Speedy

### Class 2 1/2

Barnet Medium  
Barnet Ortho Medium

Cramer Anchor

Hammer Fast

Seed 23

Lumière Panchromatic

### Class 3

Wellington Landscape

### Class 4

Stanley Commercial

Ilford Chromatic

Ilford Empress

### Class 5

Cramer Commercial

Hammer Slow

Hammer Slow Ortho

Wellington Ortho Process

### Class 8

Cramer Slow Iso

Cramer Slow Iso Non-Halation

Ilford Ordinary

### Class 12

Cramer Contrast

Ilford Half-Tone

Seed Process

### Class 100

Lumière Autochrome

# The Round Robin Guild Exposure-Guide For March

COMPILED BY PHIL M. RILEY

UNDER this caption a brief table of exposures will be given in each issue for the guidance of Guild members during the following month. While the figures are indicative only, they will be found approximately accurate for the assumed conditions they have been applied to. If the exposure-times given are not considered imperative, but as suggestions, possibly to be varied slightly at the discretion of the worker, these tables will prove of great benefit to all who use them.

**The table below gives the exposures required by the different subjects and plates mentioned during the month of March on any fine day between 11 A.M. and 1 P.M., when the sun is shining brightly and the lens is working at f/8, or U. S. No. 4.**

Double the exposure if the sun is obscured but the light is fairly bright, or if f/11, U. S. No. 8, is used; also between 8 and 9 A.M. and 3 and 4 P.M. Treble it when the light is rather dull. Increase it four times when there are heavy clouds and very dull light, or if f/16, U. S. No. 16, is used; also from 7 to 8 A.M. and 4 to 5 P.M. For f/5.6, U. S. No. 2, give half. From 9 to 11 A.M. and 1 to 3 P.M. increase the exposure one-third.

PLATES (List on Opposite Page)

SUBJECTS	Class %	Class 1	Class 1 1/2	Class 1 1/2	Class 2	Class 2 1/2	Class 4	Class 5	Class 6	Class 8	Class 12	Class 160
Studies of sky and sleepy clouds; open snow-scenes without foreground ....	1/1024	1/512	1/400	1/320	1/256	1/200	1/128	1/100	1/80	1/64	1/40	1/5
Open views of sea and sky; very distant landscapes; studies of rather heavy clouds; winter-scenes having very light snow-covered foregrounds ....	1/512	1/256	1/200	1/160	1/128	1/100	1/64	1/50	1/40	1/32	1/20	2/5
Open landscapes without foreground; open beach, harbor and shipping-scenes; yachts under sail; very light-colored objects; studies of dark clouds; average snow-scenes .....	1/256	1/128	1/100	1/80	1/64	1/50	1/32	1/25	1/20	1/16	1/10	4/5
Average landscapes with light foreground; river-scenes; figure-studies in the open; light-colored buildings and monuments; wet street-scenes; snow-scenes with excessive contrast .....	1/128	1/64	1/50	1/40	1/32	1/25	1/16	1/12	1/10	1/8	1/5	1 3/5
Landscapes with medium foreground; landscapes in fog or mist; buildings showing both sunny and shady sides; well-lighted street-scenes; persons, animals and moving-objects at least thirty feet away .....	1/64	1/32	1/25	1/20	1/16	1/12	1/8	1/6	1/5	1/4	2/5	3 1/5
Landscapes with heavy foreground; buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red brick buildings and other dark objects; groups outdoors .....	1/32	1/16	1/12	1/10	1/8	1/6	1/4	1/3	2/5	1/2	4/5	6 2/5
Portraits outdoors in the shade; very dark near objects .....	1/16	1/8	1/6	1/5	1/4	1/3	1/2	2/3	4/5	1	1 3/5	13
Badly-lighted river-banks, ravines, glades and under the trees .....	1/8	1/4	1/3	2/5	1/2	2/3	1	1 1/3	1 3/5	2	3 1/5	26
Average indoor portraits in well-lighted room, light surroundings, big window and white reflector .....	3/8	3/4	1	1 1/5	1 1/2	2	3	4	4 1/2	6	10	77

In order to make the exposures as accurate as possible after the final multiplications, all fractions accompanying whole numbers have been allowed to remain in this table, except when the whole numbers were so large that fractions might be disregarded as negligible. In such cases approximate figures have been given. Shutters will not always give the exact exposure required, but the nearest speed may be used if it is approximately correct. When the nearest speed is too short open the diaphragm a little; when too long, close it a little. Let the exposure be a little too long rather than too short, and the more contrast there is in the subject the more it may be over-timed. Over-exposure, unless excessive, can be controlled in development, but under-exposure will not give a satisfactory negative.

## OUR ILLUSTRATIONS

FOR the cover-design of this issue we have chosen "Children of the Toilers," by Waldo E. Strayer. It is striking in composition yet simple in construction, and makes a strong human appeal, telling of the fascination which the great Pittsburgh steel-plant, where their fathers labor, has for these little tots. Data: April, 2 P.M.; bright sun; Cooke lens used wide open;  $\frac{1}{2}$  second exposure; Seed 26x plate; pyro developer; platinum print.

Of the superb examples of Salon work little need be written here, as Mr. C. Yarnall Abbott has commented upon them in an article elsewhere in this issue. The data relating to the making of the prints worthy to be passed for exhibition by a jury of eminent artists are always of the utmost interest, and we give them below in detail, as far as it has been possible to obtain them.

"The Sun-Worshiper," by W. H. Porterfield. 4 x 5 Korona camera and lens; September, 6 A.M.; good light; bulb exposure; plate developed with metol-quinol; green carbon print on Whatman's heavy paper.

"A Modulation," by F. Austin Lidbury. This is a subject which can never be done justice in half-tone. It loses much in the absence of color, and the subtle middle-tones and beautiful gradations defy reproduction. Data: 4 x 5 Auto-Graflex; Adon lens, 28-inch focus, f/32; Iso-chrom filter; September, at noon; hazy light; 30 seconds' exposure; Orthoron plate; rodinal developer; enlarged negative on Seed's Transparency-plate; Autotype carbon print.

"Winter on the River," by John Chislett. 4 x 5 Premo camera; Plastigmat lens, 7-inch focus, stop 4; February, 2 P.M.; dull light;  $\frac{1}{2}$  second exposure; Cramer Instantaneous Iso plate; ortol developer; platinum print from an enlarged negative made by preparing a full-size enlarged positive from which a contact negative was taken, the sky being lightened at the horizon, and distance put in on the enlarged negative.

"Chioggia," by William H. Phillips. No. 3 F. P. K., 3 $\frac{1}{4}$  x 4 $\frac{1}{2}$ , Goerz lens; film; pyro developer; enlargement on Platino A.

"Flower-Study," by Miles C. Nichols. 3 $\frac{1}{4}$  x 4 $\frac{1}{2}$  Seneca camera; R. R. lens, 5 $\frac{1}{2}$ -inch focus, stop 16; three times filter; May, 2 P.M.; bright interior light near east window; 4 seconds' exposure; Hammer Aurora plate; pyro developer; single-transfer carbon on Whatman's rough paper.

"In the Valley," by Edward B. Sides. No data available.

"Scala Santa, Auray, France," by Walter Zimmerman. This picture represents one of the ceremonies attendant upon the pardon of Sainte Anne's day, July 25, at Auray, a mediaeval town of Brittany. Data: 5 x 7 Kodak; Bausch & Lomb lens, 8-inch focus used wide open; July, late

afternoon; poor light; 2 seconds' exposure; eiko-hydro developer; gum-platinum print.

"A Wayside Inn," by Frank E. Huson, is a typical English country-scene, which breadth of treatment and good composition have made doubly interesting. No data are available.

"In Chelsea Square," by Paul Lewis Anderson. Data: 8 x 10 Century view-camera; Smith Semi-Achromatic lens, 16-inch focus, f/16; Ideal three-times filter; July, 2 P.M.; intense light; 1/30 second; Cramer Isonon plate; pyro-acetone developer; American platinum print; developed cold and mercury toned.

"On the Lake," by Berne F. Eilers. No data are available regarding this attractive subject.

"The Tow," by C. C. Taylor, is of the silhouette order, commendable for the liquid quality of the water and showing the value of smoke in scenes of activity. Data: 4 x 5 Premo; B. and L. rectilinear lens; August, 11 A.M.; fair light; U. S. 4 stop;  $\frac{1}{2}$  second exposure; Ortho plate; pyro developer; bromide enlargement.

Mr. W. B. Post has long enjoyed the enviable reputation of being in the forefront of photographers who have made the snow a specialty, and in this field of work no pictorialist in America is regarded with greater admiration.

"Old Potato House" is an excellent uphill effect, with the expanse of foreground made attractive by the unevenness of the snow in the trodden path. The point of interest is well placed, and the print as a whole furnishes a good example of flat lighting with the sun nearly behind the camera. Data: 8 x 10 Blair camera; Ross lens, 16-inch focus, f/22; yellow screen; January, late afternoon; full exposure; Seed orthochromatic plate; pyro-soda developer; rough platinum print.

"Christmas Morning." Data: 8 x 10 Blair camera; Ross lens, 16-inch focus, f/22; yellow screen; December morning; full exposure; Seed orthochromatic plate; pyro-soda developer; rough platinum print. An enlargement from a portion of an 8 x 10 plate.

"Early Spring" conveys admirably the feeling of balmy air, slowly melting the deep snow-banks. Everything is clearly defined, but the slight, soft haziness does its share to make the impression of warmth convincing. Data: 8 x 10 Blair camera; Ross lens, 16-inch focus, f/22; yellow screen; March morning; sunlight, full exposure; Seed orthochromatic plate; pyro-soda developer; rough platinum print.

"Lengthening Shadows" is a more diffused effect, but it is thoroughly in keeping with the light of late afternoon. The scene is typical of the average New England farm, and should find many admirers. Data: 8 x 10 Blair camera; Steinheil lens, 13-inch focus, f/16; yellow screen; February; soft light; full exposure; Seed ortho-

chromatic plate; pyro-soda developer; rough platinum print. Mr. Post is not certain regarding his exposures, but states that they vary from 2 to 6 seconds.

### The Monthly Competition

It was not to be expected that "Glimpses of Foreign Lands" would bring so large a number of entries as some of the other subjects, but the prints received certainly justify including it in our list, and most of them were both excellent and interesting.

William H. Phillips was awarded first prize for "Beggars of Perugia," a genre study of great merit. Data: No. 3 Kodak; Goerz lens, Series III, 5-inch focus, stop 16; July, 11 A.M.; sun-light;  $\frac{1}{25}$  second exposure; pyro developer. Only a portion of the film was enlarged on Royal Bromide, a silk screen being held about six inches from the print during part of the exposure.

The second prize went to Robert E. Weeks for "The Bridge of Sighs, Venice," a much photographed subject, but which Mr. Weeks has invested with a new interest because of the unusual spacing, which not only shows the bridge

but also gives a better idea of the canal and surroundings than a more conventional composition. Data: No. 1A Kodak; bright light; instantaneous exposure; M. Q. developer; enlargement on Monox paper. Negative made by Simeon Clevenger; enlargement by Robert E. Weeks.

"Street in Pisa, Italy," by A. F. France, won third prize. Although the figures are rather self-conscious, the scene is typical and well composed. Data: August, bright sun; Wunches camera; Zeiss-Tessar lens, f/16;  $\frac{1}{25}$  second; film pack; M. Q. developer; enlargement on Cyko.

Among the several subjects receiving honorable mention, "Little Wood-Gatherers," by Richard Pertuch, and "Going to Market, Naples, Italy," by Agnes H. Roop, are particularly interesting because of their human appeal.

"Little Wood-Gatherers." July, 5 P.M.; fair light; Saxony film, Voigtländer & Sohn's Colineal lens, f/8;  $\frac{1}{10}$  second exposure; pyro developer; enlargement on Royal Nepera.

"Going to Market." January, 9:30 A.M.; bright sun; lens at f/8; Kodak film;  $\frac{1}{100}$  second exposure; Velox print.

## NOTES AND NEWS

Announcements and Reports of Club and Association Meetings, Exhibitions and Conventions  
are solicited for publication

### The Photo-Secession

MANY of our readers will be glad to learn that the Photo-Secession is still very energetic, and that its chief director and high-priest, Mr. Alfred Stieglitz, is still at the helm — active with word and deed, as of yore. The Little Galleries are still, in fact, always the scene of pictorial activity of this coterie, and the latch-string is always out, with Mr. Stieglitz ready to extend the glad hand.

The scope of the exhibitions has considerably broadened; for, in addition to photographic prints, whether straight photography or otherwise, there are shown collections of drawings, etchings, etc., all of great pictorial interest. According to a very friendly letter received by us from Mr. Stieglitz, recently, the shows for the remainder of the season will be prints and Autochromes, by Edward Steichen, while, at the same time, his paintings will be on exhibition at the Montross Gallery. Mr. Steichen will come over from Paris to be present with his work for these exhibitions.

These two shows will be followed by etchings, drawings, etc., by Gordon Craig, of London, who, according to Mr. Stieglitz, is one of the biggest men alive today. This artist's work has never been shown in America before. Then follows a new series of drawings by Rodin, and Matisse drawings. Mr. Stieglitz considers Rodin and Matisse the foremost artists of France today,

and they are heart and soul with the Photo-Secession. Their work will be seen nowhere else in this country outside of the Photo-Secession. Then comes an exhibition of water-colors, by John Marin, one of the finest water-colorists of the day from a modern point of view; a set of drawings by an unknown Danish artist, who is said to be doing very great work, although known to but few, even in Europe; photographs by Annie W. Briman; photographs by Frank Eugene, etc., so that there will be always something of interest and value on the walls of the Little Galleries, where every earnest worker, and particularly the readers of PHOTO-ERA, will be heartily welcome.

Mr. Stieglitz writes in his usual characteristic vein that the Photo-Secession is putting photography through a very severe ordeal, trying it out from every point of view. They are doing a work that the average outsider may find it difficult to grasp, but always worthy his critical examination. Mr. Stieglitz is glad to have it understood that, like the workers he represents, he has gotten beyond the kindergarten and primary stage and is working for the highest possible ideals in art.

### Kodak Treasures

COINCIDENT with the arrival of Artura at Rochester, N. Y., was the coming of Mary Juliette Hord. The latter is the younger — a tiny miss, born Dec. 27, 1909.

## Photographers' Association of America

The Executive Committee of this association met in executive session at the Hotel Pfister, Milwaukee, Jan. 12, 1910, to arrange for the Thirtieth Annual Convention. All the officers were present, as follows: A. T. Proctor, president; G. W. Harris, first vice-president; Ben Larrimer, second vice-president; L. A. Dozer, treasurer; J. H. C. Evanoff, secretary.

The outgoing secretary handed in the following financial report:

Photographers' Association of America in account with G. W. HARRIS, Secretary.

Total received for space .....	\$3,272
Total received for advertising .....	945
Total received from old account .....	12
Paid to L. A. Dozer .....	\$4,229

\$4,229 \$4,229

Treasurer Dozer then handed in his account for the previous year, as follows:

### SUMMARY OF TREASURER'S ACCOUNT FOR 1909

#### Receipts

Cash on hand Jan. 1, 1909 .....	\$4,698.74
Received from memberships and dues .....	4,054.50
Received from sale of ladies' pins .....	96.50
Received from secretary for advertising and floor-space .....	4,229.00

#### Expenditures

	\$13,078.74
Paid out on vouchers, 842 to 932 inclusive .....	86,595.52
Cash on hand Jan. 1, 1910 .....	6,483.22

Total ..... \$13,078.74

(Signed) L. A. DOZER,  
Treasurer.

President Proctor appointed J. H. C. Evanoff and Ben Larrimer as a committee to audit the accounts of the secretary and treasurer. The accounts were found correct, and approved.

**TIME AND PLACE OF MEETING.**—After a thorough canvas of the dates most suitable, it was decided that the Thirtieth Annual Convention be held during the week of July 11, 1910, and the Auditorium in Milwaukee, Wis., was selected as the place of meeting.

**SCHOOL OF PHOTOGRAPHY.**—The School of Photography having met with such favor at the two previous conventions, it was unanimously decided to hold it again, under the supervision of the most expert photographers that can be procured.

**THE PICTURE-EXHIBIT.**—As the non-competitive scheme has proved itself entirely successful, the board decided to adopt the same policy for the convention of 1910.

#### RULES AND REGULATIONS.—

(1) Exhibitors are requested not to exceed three prints in their exhibits—no other restrictions.

(2) Application for exhibition-space must be made to First-Vice-President G. W. Harris, 1311 F St., N. W., Washington, D. C.

(3) All exhibits must be sent prepaid to G. W. Harris, first vice-president, Milwaukee, Wis., care of Milwaukee Auditorium, and must reach Milwaukee on or before July 8, 1910. Any exhibit not having express-charges prepaid will not be accepted.

(4) The Association will not be responsible for any loss or damage to pictures in its charge, but special precaution will be taken by the committee to ensure the safe return of all exhibits.

(5) No exhibits shall be removed from the hall until after the close of the convention. Exhibitors who desire personally to take charge of or remove their exhibits may do so only by permission of G. W. Harris, chairman of the Hanging Committee.

(6) This exhibition being a complimentary one, and the photographs being solicited with the understanding they are to be returned to the rightful owners, all exhibits will be returned to them intact at the close of the convention.

**HEADQUARTERS.**—The Hotel Pfister was selected as official headquarters.

**THE PRIZE FOR BEST INVENTION, ETC.**—The sum of One Hundred Dollars was set aside to be awarded for the best invention, process, apparatus or appliance pertaining to photography, and which has not heretofore been shown or exhibited at any previous national convention.

**PUBLICITY.**—The secretary was instructed to arrange for a systematic plan of publicity, to begin at once, under the supervision of the Executive Board.

**CONGRESS OF PHOTOGRAPHY.**—Arrangements were made for the second meeting of the Congress of Photography, and the secretary instructed to call upon the State Associations to send their duly-appointed delegates thereto.

**FEDERATION OF WOMEN PHOTOGRAPHERS.**—The Executive Board decided to coöperate in every way with the plans submitted by the Federation of Women Photographers, a branch of the P. A. of A., inaugurated at Rochester, 1909.

**COMMERCIAL PHOTOGRAPHY SECTION.**—It was decided to invite all commercial photographers to join the Association and take part in the convention, a special commercial photographic display being planned, provided sufficient participants can be obtained.

**ENTERTAINMENT.**—The Milwaukee photographers having announced that they had appointed a committee to look after the entertainment of the visiting photographers, the Executive Board decided to coöperate fully with their plans, and the entertainments promise to be entirely satisfactory.

**GENERAL.**—The various committees appointed by the president took up their work in detail, and laid careful foundations looking forward to a successful meeting.

**CONSTITUTION.**—The Executive Board desires to draw attention to the fact that the 1910 convention of the P. A. of A. will be conducted under a revised constitution and by-laws, these revisions having been adopted at Rochester, 1909.

The following committees were appointed by the president for 1910:

Hotel and Accommodations: Evanoff, Harris, Dozer.

Decorations: Harris, Larrimer, Evanoff.

Buttons: Dozer, Evanoff, Larrimer.

Printing and Advertising: Harris, Dozer, Evanoff.

Press: Harris, Larrimer, Evanoff.

Information: Dozer, Harris, Evanoff.

Transportation: Evanoff, Dozer, Larrimer.

Association Annual: Larrimer, Harris, Proctor.

Local Entertainment: Stein, Bangs, Bish, Reimer, Guttenstein, Bandtel.

J. H. C. EVANOFF,  
*Secretary.*

### Boston Camera Club

At the annual meeting, held early in January, the following officers were elected: Phineas Hubbard, president; A. E. Fowler, vice-president; J. H. Thurston, secretary; Charles H. Chandler, treasurer; F. R. Fraprie, librarian. The Executive Committee consists of E. W. Kellogg, C. F. Hildreth, F. R. Fraprie, S. B. Read, F. A. Saunderson, W. H. Wing.

The club begins the new year without debt and with great enthusiasm for increasing the popularity and prestige of the organization.

### Winter Scenery in Boston

As Mr. W. B. Post, in his admirable article on winter-photography in this issue, truly says, the many beautiful suburbs of Boston are eminently favored with beautiful scenery — rare and attractive pictorial subjects for the camera. Indeed, as Mr. Post and other writers have stated, the suburbs of Boston are unsurpassed by any city in the world for natural beauty.

Take, for instance, the Riverway — an artificial stream created by the Park Commission. This starts at Jamaica Pond and runs into beautiful Brookline. At Longwood the views along this pretty stream — whether in summer or winter — are of a fascinating character and make an irresistible appeal to every picture-lover. The stream, in a serpentine and constantly undulating line, winds its way through the Back Bay Fens and terminates at the Charlesgate. To all camerists visiting Boston we recommend a visit to this interesting and picturesque locality.

### New York Y. M. C. A. Camera Club

THE Fifth Annual Print-Exhibition of the Camera Club of the Twenty-third St. Branch Y. M. C. A., New York City, was held on New Year's Day. Nearly one thousand visitors called at the rooms on that day. Many words of commendation were spoken concerning the high-class work done by the members of the club.

The arrangement of the lights and the method of hanging the pictures made the exhibition one of the most successful and attractive ever held by the club. A popular feature was an interesting collection of Autochrome plates by Charles d'Emery, and lantern-slides by John Fairman, Ernest Adams, W. J. Guy and others.

## LONDON LETTER

By E. O. HOPPÉ, F.R.P.S.

SINCE the decease of the old "London Camera Club" there was felt a constant desire for the reestablishment, on somewhat different lines, of a modern, up-to-date camera club for England's metropolis. At various times committees were formed and ways and means discussed for the formation of such an institution, but nothing came of it. I am glad to say, however, that it is now actually settled that we shall have one in the very near future. All possible credit is due to Mr. Craigie, who, after untiring efforts, succeeded in forming a most influential working-committee, with the Earl of Crawford as president. Splendid premises have been secured and it is expected that the new club will be opened in the early spring.

During the past year and on many occasions the great need, in England, for a photographic club patterned after the best Austrian and German clubs has been brought home to me. The German student who belongs to one of the great photographic clubs where work is being carried on all day and, one might almost say, all night, where the older and more experienced workers are laying themselves out, regardless of time and energy bestowed, to give of their best to those who want to learn, can have no idea of the isolation to which one is condemned in this country. True, we have the Royal Photographic Society — and a fine organization it is, in many ways. It has a finely-adapted building for its home; it forms an excellent course of lectures by prominent men during the winter-months, and has its show during the autumn months which is known throughout the world. It includes in its ranks some of the best-known and ablest photographers in the world, but — and there is almost always a "but" in these cases — if one were to suggest that it would be advantageous to the cause of photography in this country if some of the leaders, let us say in gum-work, were to meet on some nights in the workrooms of the R. P. S. and organize a class both for further investigation on their own behalf and for the further improvement of the technique or the study of the applicability of the process in certain pictorial directions, and, also, to instruct those less familiar than themselves with the science and practice of gum-printing, the suggestion would meet such a reception as would chill any further advances of the kind. In contrast to all this is the Photo-Club of Vienna, with its ceaseless activity by day and by night. The workrooms are occupied all day, and from 7 to 12 P.M. — even to 1, 2 or 3 A.M. — by enthusiasts who are determined to master and to advance pictorial photography. The meetings at the R. P. S. are highly pleasant and instructive functions, but, in a great measure, they are not *photography*. There are a few scientific lectures, but there is no co-operation and no enthusiasm for the cause in which the mem-

bers are mutually engaged. I suppose the old taunt is true — we do not take our photography seriously; it is a pastime; it enables us to spend a pleasant evening and it occupies our summer holidays agreeably enough; but it is not a cult, and the enthusiasm, the time and the sacrifices we are willing to devote to it are woefully insufficient. I suppose it will hardly be believed when I say that many of our more prominent exhibitors are doing no photography, to speak of, during a great part of the year, and do not attempt picture-making except for a week or two before the autumn-show, when they are galvanized into activity by the necessity to produce some pictures so as not to be too far behind in the annual exhibitions. Such indifferent efforts as these can never make for great advancement, and one is not surprised at the apathy which is quite general.

This feeling of unrest undeniably exists among those workers whom one may regard as the leaders in this country. It was with the idea of ascertaining a general opinion as to the future of British pictorial photography, that F. J. Mortimer, the energetic editor of the *Amateur Photographer and Photographic News* addressed the question: "The Future of Pictorial Photography in Great Britain — what is necessary if the lead is to be retained?" to the principal English pictorial workers. The resulting answers were of the greatest possible interest, and I will state briefly the main points raised by some of the best-known men. Craig Annan does not think that one can be taught to produce works of art by organization. George Davison does not know, and does not wish to know, any distinction of nationality or personality or method. Alexander Keighley thinks that every man should work out his own salvation, follow his own individuality and "to his own self be true." Malcolm Arbutnott points out that the first essential in any enterprise is faith, and that this is singularly lacking in regard to pictorial photography. He asserts that there is really nothing being done in this country to encourage truly fine work. Reginald Craigie says that the maintenance of a large annual exhibition, illustrative of the most modern methods and aims, in which all schools are represented, seems to him absolutely essential if real progress is to be encouraged. A successful future for pictorial photography in this country will depend largely upon the seriousness which is being brought to the work. Snowden Ward sees the signs of strength in the failure of priestcraft and the decrease of servility — not actually though apparently, parts of the same thing. A. H. Blake suggests that very few of those who practise pictorial photography in England know anything about the pictorial movement, or are acquainted with the position which has been won in the art-world. F. C. Lambert thinks that one of the signs of the times — among photographers as well as politicians — is a tendency to seek notoriety at any price.

Through the transformation into a restaurant of the new gallery where for many years the

Royal Photographic Society held its annual exhibition, this society has been forced to look out for new quarters, and I hear that it was only with great difficulty that another gallery could be secured. Unfortunately the only available vacant date is in August, which is certainly not a very good time of the year for an exhibition. I sincerely hope that the proposed devotion of considerable space to the "Trade Exhibits" will prove an attraction.

The Linked Ring has decided not to hold a Salon in England in 1910, which action is held by some to mean the dissolution of this famous organization.

A few of the members propose to hold exhibitions of two or three men's work in the minor galleries, probably in the spring.

A Salon Club has been formed, to hold the London Salon 1910, which will be at or about the same time as the old Salon. This club includes, already: J. H. Anderson, A. H. Blake, M.A., Mr. and Mrs. Will A. Cadby, Reginald W. Craigie, Chas. Emanuel, Charles Job, Alexander Keighley and J. B. B. Wellington, from amongst the members of the Linked Ring, while others have promised work for its exhibition. Certain pictorialists who are not members of the Ring have joined the Salon Club, and it is assumed of the active sympathy of Yarnall Abbott, Sidney Carter, Robert Demachy, Rudolf Dührkoop, the brothers Hofmeister, Mortimer Lamb, Paul Pichler, C. Puyo and others. Its effort will be to hold the most catholic and inclusive exhibition of purely pictorial photography ever assembled.

The announcement is made that the Council of the Royal Photographic Society, at its last meeting, early in January, awarded the progress medal for 1910 to Mr. Alfred Watkins, for his work in exposure and development. Although this is the highest honor within the gift of the Society, it is justly merited by Mr. Watkins, who is well known for his exposure-meter that has been successfully in use for several years, as well as his method of factorial development, first published in 1894. Several minor improvements have been made by the author, particularly the use of a test-strip exposed separately when developing color-sensitive plates. By experiment during the past year or more, Mr. Watkins has classified the plates now upon the market with reference to their speed of development, thus supplying data for several methods by which the necessary allowance for the temperature of the developer may be made automatically by the photographer.

[The absence of Mr. Hoppé's London letters in the two preceding issues of this magazine may have occasioned some comment among our readers. These and other omissions are due to the severe illness of Mrs. Hoppé, whom Mr. Hoppé was obliged to take to the continent last December, remaining with her a considerable time. Her condition still causes anxiety, and it is sincerely hoped that she will soon be on the way to rapid and complete recovery.—EDITOR.]

# WITH THE TRADE

## Where Ignorance Is a Crime

IGNORANCE of the law excuses no one; so when a photographer is careless enough to use flash-powder in an alcohol flash-lamp he alone is responsible for the consequences. Even at this late day accidents with flash-powder are of frequent occurrence the world over. In some cases the injured operator—he is not always killed—seeks to recover damages by a process of law, but we do not recall one in which he was successful. Why? Because when he asks the dealer for a bottle of flash-powder, he invariably gets it. The label plainly states the nature of the contents. If by any chance the label is gone and the operator wishes to know whether the mixture be an explosive or pure metallic magnesium, a small quantity placed on the tip of a knife and ignited with a lighted match will quickly remove all doubt—but nothing else.

A photographer has no right to engage in flashlight-work if he does not know that a blow-through flash-lamp calls only for pure magnesium powder—harmless under any conditions. To use flash-powder with such an apparatus is the height of folly. Fortunately, the danger of premature explosion of flash-powder exists no longer. Workers may safely rely on such illuminants as Eastman's Spreader Flash-Cartridges, Eastman's Flash-sheets, Gennert's "Spred-Lite," Burke & James' "Luxo," Nichols' Patent Flash-Powder, Tollidol Company's "Astra" and "Afga Blitzlicht" of the Berlin Aniline Works. How to obtain the best results with these mixtures is explained in the booklets on the subject issued by each firm, and sent free to any one.

## Prize Advertising-Pictures

*Studio Light and the Aristo Eagle* for January presents a series of interesting pictures—the result of the Kodak Advertising-Contest for 1909, in both the professional and amateur classes. While tastes differ, we consider the picture which won the first prize, \$500.00 cash, by William Shewell Ellis, emphatically the best. The practical articles are particularly bright and valuable, and appeal strongly to the progressive worker. It's a strong number, throughout.

## Exposure-Method Successful

THE first edition of Steadman's little work, "Complete Exposure-Method and the Home-Portrait-Helps," which has been advertised so frequently in these pages, has been completely sold out, and second one is in preparation by Mr. Steadman. This will contain important improvements and additions, and its appearance will be eagerly anticipated by all who are interested in home-portraiture.

## Artura at Rochester

ARTURA has said "Good-by" to Columbus, and has moved to Rochester, taking an honored place among its new relations. Artura is now being successfully produced in its new home, and is already stocked at Rochester, also at the New York and Chicago branches, and large shipments have also reached San Francisco. The consumer will have no difficulty to procure all the Artura paper he wants, at the same price as hitherto and through his favorite channels.

## Change of Name

WE take pleasure to announce that on and after Jan. 15, 1910, the business formerly conducted under the name of Taylor, Taylor & Hobson, Ltd., was continued as The Taylor-Hobson Co. Cooke anastigmat lenses—none so justly popular in America—will still be imported from the English factory, and Mr. J. Ronald Taylor will continue the management of the American business as before.

## Young "Papa" Cramer

IT was our privilege and pleasure to meet the greatly rejuvenated "Papa" Cramer at the Hotel Lenox, in Boston, January 15. During the last fifteen years or more "Papa" Cramer has not been able to conceal the effects of the cares and responsibilities resulting from his connection with his great dry-plate establishment. While always energetic in mind and body, he looked, although he never acted, the part of an old gentleman. It was, therefore, a great surprise to find him looking at least fifteen years younger than his actual age, in sound physical and mental condition, joyous, optimistic and as full of genuine fun as in his best days. This agreeable change, doubtless, has been caused by the successful increase of his firm's business and its greatly-increased prestige. May Mr. Cramer, who ill fits the designation of "Papa," long continue to look, act and feel as he does today.

## Whitfield's Flash-Lamps

ARRANGEMENTS have been made with Mr. Harry A. Whitfield for the sale in America of his well-known Spred-Lite Flash-Lamps. Mr. Whitfield is the inventor of the system of igniting flash-powder by means of a percussion-cap, and he has valuable patents which completely cover this method. He has constructed a fine line of lamps ranging from 60 cents to \$6.00, which can be held in the hand conveniently and with perfect safety. They produce a sheet of flame varying, according to the size of the lamp, from twelve to thirty-six inches. The entire line will be handled exclusively by G. Gennert, 24-26 East 13th St., New York.

## Professional Magazine Sold

THE *St. Louis and Canadian Photographer*, after a long and checkered career of thirty-three years, has finally been absorbed by the *Bulletin of Photography*. The transaction took place early last January. It is announced that the old subscribers of the St. Louis publication will get the *Bulletin of Photography* for their unexpired subscriptions.

## Morgan's Dry-Mounting Process

THERE are a great many cases which call for a mounting-preparation which shall ensure the mounted print to lie permanently flat. The ordinary starch paste, however handy and easy to use, is unfit for this purpose. Nearly every practitioner is familiar with gelatinous preparations which, if properly compounded, are admirably suited to mount prints without warping. The dry-mounting tissue sold by an eminent American manufacturing-firm is an excellent product, and very generally used. We have seen a number of photographic prints mounted on cardboards of varying degrees of thickness by Morgan's Patent System of Dry-Mounting, and no possible fault can be detected. We also learn that the Morgan method has many warm devotees in England, where it originated. The device is for dry-mounting, plate-marking and die-stamping — all one operation and without tissue — to be attained with ease and certainty of manipulation. It is understood that the patentees are seeking an outlet for their product in the American market, in which case our readers will have ready opportunities to make its acquaintance.

## A Hustling New York Firm

SEVERAL years ago we printed an account of the start and development of the Obrig Camera Company, 147 Fulton St., New York City. Our remarks at that time were highly creditable to the firm's energy, enterprise and reputation. The extent of its business during the last two years has very considerably increased, and it does, probably, the most successful photographic business in its section of the metropolis. The firm has just issued a neat catalog, a copy of which will be mailed to any one for the mere asking.

## The Trend of the Times

A GRATIFYING evidence of the growing sympathy and co-operation between the forces of capital and labor was seen on the evening of December 23, when the A. M. Collins Manufacturing Co., of Philadelphia, the leading manufacturer of card-mounts in America, entertained its employees with an elaborate vaudeville performance at the Lu Lu Temple, at which more than two thousand persons were present. This treat was followed the next day by the distribution to every employee of gifts of a substantial and acceptable character. The Christmas season is a most appropriate time for bringing into action the kindest and best qualities of human nature, and it seems that more than the usual number of large employers of labor have taken advantage of the Christmastle of 1909 to display an active and sympathetic interest in the pleasure and well-being of their employees.

## An Omission

THE exceedingly attractive and ornamental picture on the January cover has caused considerable comment in favor of the author, whose name was inadvertently omitted in "Our Illustrations" department. As stated in the table of contents, the originator of this picture, "A Winter's Night," is John F. Jones, president of the Toledo Camera Club, Toledo, O.

## A Fearless Magazine

IN renewing his contract one of our largest advertisers stated that it was a pleasure to know that there is at least one fearless magazine in the photographic field; viz., PHOTO-ERA, and that it certainly must profit by it in the long run.

The policy of PHOTO-ERA is to support only the best products and to discriminate conscientiously in the selection of advertisers, as well as in supplies of all kinds, thereby gaining, as it has already, the highest confidence of its readers, supporters and friends.



*Advertising is not medicine to be taken in time of distress. It is nourishment, and should be taken regularly.*

## PHOTOGRAPHIC EXHIBITIONS

Information for publication under this heading is solicited

Society or Title	Date	Entries Close	Particulars of
Sixth American Photographic Salon St. Louis, Mo. St. Paul, Minn.	Mar. 6-14 Mar. 24 to Apr. 6		C. C. Taylor, Sec'y 3236, Cambridge Ave., Toledo, O.
Racine, Wis. Toronto Camera Club	Apr. 20-30 Apr. 4-9		Hugh Neilson, Sec'y, 2 Gould St., Toronto, Ont.

# PHOTO-ERA

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Official Organ of the American Federation of Photographic Societies

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Contributions relating to photography in any and all of its branches are solicited and will receive our most careful consideration. While not accepting responsibility for unrequested manuscripts, we will endeavor to return them if not available, provided return-postage is enclosed.

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AWAY TO THE WEST  
ARTHUR MARSHALL



# PHOTO-ERA

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## Planes in Landscape-Photography

WALTER ZIMMERMAN

WHEN we begin to take photography seriously, regarding it as a medium of pictorial expression, we use various terms employed by the artists of the brush and pencil, and often without any too clear perception of their several meanings. We are prone to confuse the words "atmosphere," "distance," "planes," "accents," and "perspective," as if all of them meant the same thing. I remember my own delight, some years ago, when told that a certain print, just hung up to dry, had "atmosphere." I did n't have the smallest idea what that meant, but it sounded well; and the remark had the fortunate result of causing me to think and ask.

"Atmosphere," I have learned since then, is the expression, by the brush or the camera, of the effect of light passing through the air; and giving the person who examines the picture the impression of sunlight, fog, haze, rain, snow or any other condition intended to be represented. "Distance" means the rendering of the picture so that while near objects shall so appear, distant objects shall really impress one as being far away. "Planes" are the several distances, such as foreground, accented point, middle-distance and remote distance. "Accent" suggests the portion of the picture to which the onlooker is supposed to give particular attention, the accented part being well drawn, with, perhaps, sharp definition, but certainly with comparatively strong

effect of light and shade, and indicating the story that the artist has to tell. "Perspective" is a term too well understood to require definition and, in photography, is illustrated far better by the stereoscope than the single picture. Occasionally a single photograph conveys a stereoscopic impression, and the picture is sometimes classed as being excellent without the intending critic knowing why.

If any one were to tell you or me how to produce a picture, by photography, which should combine good atmosphere, well-rendered distance, plainly-indicated planes, definite accent and evident perspective he would render you or me a great service, and such a man or woman, by right, ought to produce marvels in photography. The present writer pretends only to suggest some of the things which ought to be done and others which ought to be avoided.

Let me say something, at the outset, in reference to outdoor photography which may be a shock to a large proportion of the pictorial and would-be-pictorial photographers. Under no circumstances intensify or reduce original negatives. Also, under no circumstances shadow or force the printing of the negative. If you carry out this advice you will be throwing reducers, intensifiers and masks in the scrap-heap. As a member of a large photographic club, I cannot fail to notice how many fellow-workers commit crimes against art by intensifying, reducing and masking, the writer having formerly been one of the



THE PARKWAY IN OCTOBER

PHIL M. RILEY

chief offenders. Ninety-nine per cent of my readers will demand the reason for the unusual advice just given. The answer is that the camera, lens and plate have really given, in a more or less efficient way, the true effect of light, shade, atmosphere and distance of the scene recorded by the opening of the shutter. Of course, it is utterly impossible, on either plate or paper, to reproduce the actual effect of light itself upon the eye; but the rendering on the plate is, with limitations, excellent. There are, of course, ways and ways to make the negative; that is, in exposure and development. For one thing, the exposure ought to be full, and the development such as will permit correct printing. By full exposure is meant, of course, that for the shadows, rather than for the possibly blinding high-lights. Such an exposure will give, according to the usual system of development, nothing. The usual system

is to take the plate out of the developer just as soon as it blackens, as it will do almost immediately, such a plate being usually regarded as considerably over-exposed. In the first place, the plate should not be taken out simply because it has blackened, but it should be fully developed. The developer is, also, an important consideration. Pyro would, of course, produce a negative that would be impossible for ordinary printing-purposes. Metol, on the other hand, gives all detail, as well as softness. Metol, again, may be modified. When either stale or cold it acts slowly but surely, and gives, with time and patience, a negative showing everything in front of the lens, with correct gradation, but still having excellent printing-quality. Of course, during prolonged development the covering of the developing-tray must not be neglected, and even a "safe" dark-room light must not be tested too far. If

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THE HARVEST

WILFRED A. FRENCH

you will take a negative made according to these suggestions you will find certain effects in atmosphere and distance; the important object, which you have probably focused on, will stand out, clearly and distinctly; the middle-distance will be plain, but unobtrusive; and the distance will be soft, white and blended with little gradation. You have, in this way, obtained effects which painters aim to produce with the brush. Don't misunderstand me as stating that you will, of necessity, get a real "picture" by doing this, because interest of subject, pictorial composition and excellence in massing are entirely outside of the scope of this article. I merely mean that one who makes negatives in this way is in on the right path to obtain pictorial effects when the other important conditions are fulfilled. These, then, are suggestions with which to obtain negatives in the future.

The advice as to not modifying negatives already made means that such modifications are more than likely to spoil or change the effects in light, shade and distance originally obtained. If the original negative is so dense that you cannot print with it on the paper that you prefer it is safer and better to make a new negative, of the proper printing-quality, than to run the risk of spoiling the original, as I, perhaps every reader, have done many times. If the original negative is too thin, and does not bring out the detail or effect desired, intensifying will not produce either detail or effect. In other words, you cannot put the negative into the intensifier and bring out that which you should have brought out by exposure and development in the first instance. On the contrary, the intensifier will strengthen the little that is already there, and make the absence of that which is not there all the



GOLFING AT ST. MORITZ

WALTER ZIMMERMAN

more conspicuous. As to local intensification or reduction, it should not be so much as mentioned, much less practised, since it must, of necessity, give false, misleading and inartistic effects. The reader will, without suggestion, observe that masking produces the same incorrect effect as with local intensification and reduction.

Having now recommended the avoidance of several things generally considered to be necessary, the next step is to propose other methods by which desired effects may be obtained, and more correctly.

One of these methods is to make a change in the printing-medium. Many photographers have been accustomed, for instance, to the use of gaslight paper exclusively. If they have in their collection of negatives any which do not give good results on gaslight paper they consider such negatives useless unless intensified or reduced, or worked locally, as the case may

be. Suppose the negative to be so dense in the high-lights that the prints show absolute black shadows, with hardly any form in the high-lights. One remedy is to use the negative for printing on bromide or enlarging-paper. This paper averages sixty times the rapidity of the chloride or gaslight papers. If you will give one-sixtieth of the exposure that appeared to be normal with the slow paper and then develop with a weak developer it will be found that, while the shadows show definition and gradation, the high-lights, such as clouds and snow-capped mountains, will be properly printed, and all will appear in relative proportion as to light and shade. If, on the other hand, you have been accustomed to print on platinum paper, and find that you have a negative that is entirely too thin and flat to give satisfactory results, you will find that if you change the process and make prints on slow gaslight paper you will have ob-

tained unexpected contrast and gradation. These suggestions relate to the printing from original negatives, without modification.

A more important reason for retaining the original negative without modification is that, if defective, a new negative may be made from it, either of the same or larger size; which, retaining all of the good quality of the original, may be free from the objection as to difficulty in printing. I mean that there are many negatives which would be excellent except for the difficulty of obtaining prints. The following experiment will be interesting to show what may be done in such a case. For a heavy, dense, so-called unprintable negative, take it in the dark-room and put it in the printing-frame, in contact, film to film, with a fast plate. The exposure must be for the highlights, the denser parts of the negative, so that the positive will show texture and gradation in the light parts of the picture. Develop this plate, so exposed, in stale or cold metol developer, with full development. The result is likely to be an agreeable surprise to you. From this transparency or positive a new negative is to be made, in the same manner, and again with a fast plate. The exposure from the new positive, which ought to be thin, but with full detail, will be far shorter than that with the unprintable negative, perhaps a second for the positive as compared with a minute for the negative. The new negative, if your work has been properly done, should print in a small fraction of the time of exposure as compared with the original. The prints will also be far better than from a chemically-reduced negative.

If, instead of making a new negative of the original size, you wish to enlarge, you may follow out the same principles that have just been given — namely, to expose for the high-lights on a fast plate — and in that way obtain a negative enlargement of far better printing-quality than the original small negative.\*

The reverse of this method for softening may be applied to extremely thin or "window-glass" negatives. Intensification has its element of danger to the negative, as well as the objection of irregularity — as the writer has found, to his regret, in connection with every negative which he intensified. A far better result may be obtained, without the slightest risk to the original negative, by making a contact positive, using this time a slow plate, such as a process or contrast. A properly-exposed and fully-developed positive, with *normal* developer, will probably show considerable improvement. This exposure should be long and with a weak light. A contact negative, also on a slow plate, and with normal developer and development, should be far more satisfactory than an intensified original would have been. If you wish to verify this for yourself you have only to intensify the original after you have, with these suggestions, made a good duplicate, and then compare the printing-results by the two processes. Reduced and intensified negatives are not always bad; and I would not intimate that no one can make a thoroughly good reduction or intensification; but the average results are far from good, and, therefore, the adoption of one of the methods indicated is not only better, but safer. In this way the photographer retains the effects in atmosphere and distance obtained by the lens and plate at the time of the original exposure.

The writer hopes that the reader may be able by means of these recommendations to make use of desirable negatives which, on account of their poor printing-quality, have been laid aside as useless. As to masking prints, the thing is mentioned only in order to give the earnest advice that the reader make it a custom never to do such a thing under any circumstances whatever.

\* See *Photo-Miniature* No. 100, on "Enlarging," by the author.

*There is a sort of Rubicon which art should not cross.* — HENRY HAVARD.

# A Modified Kodak

WILFRED H. SCHOFF

FOR some time I have felt the need of a small, light and dependable camera which would give a picture sharp enough to stand inspection at original size or enlarged; one which could be slipped into an ordinary pocket and still yield results which would be available for lantern-slide work when necessary.

Of the many devices on the market none seemed quite to satisfy these requirements. Either the optical equipment was insufficient for serious work, or the need of a supply of single plate-holders so increased the bulk of the outfit as to make its portability more apparent than real. If plates must be carried along, a larger reflecting-camera might just as well go with them.

The only American film-camera which ever did really go into an ordinary pocket, without projecting above the flap or bulging the sides out of shape, was the No. 0 Kodak, which deserved a better fate than to be withdrawn from the market a couple of years ago. Six or eight twelve-exposure rolls of this size,  $1\frac{1}{2} \times 2\frac{1}{2}$ , could readily be carried in one pocket while the camera went into the other, giving a traveling-capacity twelve times greater than that of any plate-camera made, and twice as great as that of any film-pack-camera. The short focal length made it particularly desirable, and the only thing needed

was to substitute for the cheap equipment a good, fast lens and modern shutter, suitably protected.

For this camera I selected a Beck Isostigmat lens, Series I, No. 2, f/4.5, focal length three inches (intended by its makers for cinematograph work), and a No. 1 Koilos shutter, with T. and B. exposures and speeds from 1 to  $\frac{1}{250}$  second.

This equipment was set in a recessed, aluminum front, fastened to the lazy-tongs in place of the old front, and required only very slight cutting of the camera-frame to permit it to lie perfectly flat. Side-openings in the frame provided for both finger and bulb-release, and a spring-actuated, hinged prop, set a little off the center, gave support for time-exposures at both end and side positions. A thin aluminum cover, easily set or removed, protected the lens and shutter; while a small felt pad, glued to

the back, corrected the inevitable slight buckling of the film, and a Newton direct-vision finder, fastened to the side of the camera, completed the outfit. This work was very skilfully done by Mr. Herbert Cross, of Philadelphia.

The advantages of such an equipment are, briefly, as follows: a three-inch lens at f/4.5, set to focus at its hyperfocal length, sixteen feet eight inches, will give sharp focus from eight feet four inches to in-



ORIGINALS OF ENLARGEMENTS ON THE TWO FOLLOWING PAGES

WILFRED H. SCHOF

SMOKY AFTERNOON, NEW YORK HARBOR  
Enlarged about three diameters on paper intended to give softness and pictorial effect





HUDSON-FULTON PARADE, NEW YORK CITY

Enlarged about three diameters on paper intended to give snapy detail

WILFRED H. SCHOFF

inity, thereby including everything within the ordinary field of the camera, and admitting of any scale of enlargement; and particularly of projection after enlargement to lantern-slide size. The great speed, f/4.5, can be used at all times without



CAMERA CLOSED

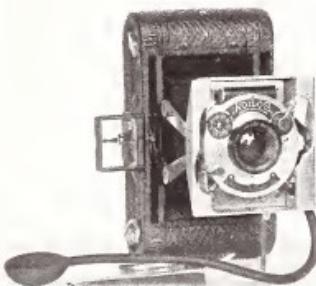
out sacrificing depth, making the camera dependable under the most unfavorable conditions of light. This would be impossible with a lens of greater focal length, which it would be necessary to stop down when racked out to focus on near objects.

Theoretically, anything nearer than half the hyperfocal length, in this case eight feet four inches, would be out of focus unless the lens were stopped down; but a practical test shows that the loss is hardly perceptible, and that this lens will make a sharp picture of a head and shoulders within four feet, or practically down to the limit of the field of vision. If improvement be desired, a smaller diaphragm, f/5.6, will give definition sufficient for the most critical eye.

With this camera a series of pictures was made of one of the parades in the recent Hudson-Fulton celebration. The test was severe, because the exposures were made near the curb, looking both across and down the street. On the negatives

the front rank of soldiers is sharp from one side of the street to the other, while the rear ranks, and the line of buildings, are sharp to the horizon. One of these negatives was enlarged from  $1\frac{1}{2}$  inches to 27 inches, or 16.6 diameters (equivalent to 275 times magnification), losing practically no detail in the process; and it would have stood twice that enlargement just as satisfactorily.

The results attained by the use of a fast short-focus lens at fixed position approximate the image reflected through the human eye, which works under similar conditions. A lens of longer focus, if fast enough for quick work, loses depth to a degree that the eye does not corroborate; and it cannot regain it without such stopping-down as largely to sacrifice its speed. It is, indeed, questionable whether the most correct photography of the future will not be done through lenses which thus



CAMERA OPEN

closely parallel the human eye, and which will in their turn require of the film and plate-makers a truer registry and a finer grain than they have yet produced.

*Some do not hear Opportunity when she knocks because they are knocking at the time.* — ELBERT HUBBARD.

# Indoor Portraiture in Dull Weather

J. PEAT MILLAR

MOST amateurs, when they first attempt indoor portraiture, are troubled by getting excessive contrast in their negatives. This is likely to be very much in evidence at the present time of year, while the light is dull and the days are short.

The portrait-negatives produced at home are generally blocked up in the highlights, and far too dark and heavy in the shadows, and come under the designation "soot and whitewash." The cause of this is generally put down to under-exposure and want of light. This is not altogether right, for if there is not plenty of exposure such excessive density cannot easily be got. The real trouble is that there is too much light on one part and too little on another.

This can, to a certain extent, be helped by the use of suitable reflectors to lighten up the shadows. But to get the best results with reflectors a certain amount of knowledge and experience is required, which a beginner cannot be expected to have, and the result is he generally uses reflectors to the least advantage.

There is another method of arriving at the same result which is as good, if not better, than reflectors, and the indoor worker cannot very easily misuse it. It is also worthy of note that many up-to-date professional photographers use it to great advantage. There is no special name for the method; it is simply a matter of diffusing the light before it reaches the sitter, by means of a piece of thin fabric, such as white "butter-muslin" placed between the light and the sitter.

Professionals generally use it in the form of a large hoop, with the cloth

stretched across it, and a long handle attached to the hoop to hold it by. When making the exposure it is held over the sitter's head, so as to diffuse the light which falls on the face. The nearer it is held to the sitter the more pronounced the effect.

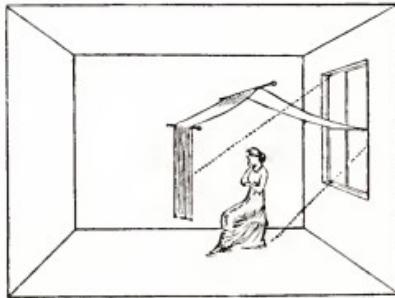
For home work the amateur need not think of either buying or making any special apparatus; all he requires is a yard of muslin suspended on two cords in front of the window; this can be raised or lowered by slackening or tightening the cords.

A plate exposed on a sitter without the diffuser and another with the diffuser in position will be a lesson in itself; the shadows will all be softened and the lights toned down when the diffuser is used; in short, the highlights will have received less exposure, and the shadows more, so that the whole negative will develop more in harmony, and a great deal softer.

At the same time you must remember that this of itself will not give what is known as "studio lighting." It will be too much of a side-lighting for that, unless the worker blocks up the lower half of the window, which in a measure helps, as the more one can get the effect of a top-light in an ordinary room the better for the purpose in hand.

But if it is desired to turn the room into a provisional studio for portraiture, the following plan answers very well. Procure four or five yards of some thin white material. Muslin will do, if a good quality is obtained.

Now take one end of the material and tack it to the center-rail of the window;



this becomes for the time being the eaves of the *pro tem* studio. Now run a cord across the center of the room, about the same height as the top of the window, and throw the cloth over this. This cord represents the ridge of the studio.

Another cord is placed across the room at the same height as the center-rail of the window. The cloth is also thrown over that and allowed to hang down, and completes the arrangement.

A studio is now at hand with a sidelight, which is the lower half of the window left bare, and a top light coming from the top half of the window and diffused to the proper angle by the white cloth; and on the other side is what may be considered a white wall and roof reflecting a certain amount of light on the dark side of the subject.

If a sitter is placed under this canopy of white material it will be found that he is very evenly lighted, there being an entire absence of heavy shadows.

With an arrangement of this kind the beginner will never be troubled with negatives of excessive contrast, and the exposure will never require to be any longer than what would be required without the canopy of diffusing-material. It is always as well to keep the sitter as low down as convenient, unless the window be an extra high one.

All the different effects of light and shade can be obtained on the face by turning it a little to one side or the other; in fact, one can work as if in a properly-lighted studio, and the same rules apply in both cases, as far as single figure-studies are concerned.

Use the lens at its widest opening, and give a full exposure. The result will be a soft, well-graduated negative, well worth all the trouble that was taken to secure it. A well-exposed and developed negative, taken under the above conditions, seldom requires any retouching, and this is a point worth considering.—*The Amateur Photographer*.



GYPSIES

SIXTH AMERICAN PHOTOGRAPHIC SALON

H. BERSSENBRUGGE

# Time-Development

## Its Excellences and Its Abuses

GASTON M. ALVES

IT is now known that time-development of our exposures is the best means yet devised of attaining our ends. Properly carried out, development is no longer a matter of judgment, but one of carrying out certain precise regulations. So long as it was believed that different exposures, lesser or greater, required for their proper development to remain in the solution longer or shorter times, time-development seemed irrational. But it is now known that within a wide range—in fact, within the limits of practical and usable exposures—our under, proper and over-exposures will reach their development in practically the same length of time in the same solution. Our negatives will be thin or dense in proportion to the exposures, but they will all yield prints, by proper printing-processes, well balanced in the lights and shades, pleasing and realistic in their contrasts. Proper density in a negative is important, but its importance is secondary. Its defects can usually be cured by the after-processes of our work. Proper and realistic rendering of the lights and shades—the realistic contrasts—is all-important in a negative. Defects here by no after-process can ever be done away with. Therefore, we should develop our exposures to the proper stage of contrasts, and let the density take care of itself. If our exposures have been about rightly timed, then when the negative has reached its proper contrasts it will also have reached the desirable density; but under proper development the slighter exposures are bound invariably to give more or less thin negatives, and the greater exposures to give more or less dense negatives.\*

\*True, if we only knew our over-exposures beforehand the use of potassium bromide would give us a negative not over-dense; but we run the risk of faulty contrasts; and besides, if by a happy chance we get these right we still have gained nothing, for by properly reducing our over-density negative given by time-development we will get the desirable amount of density with the well-balanced contrast.

Now by time-development we carry the process up to, and only up to, the proper contrasts and get negatives of varying density, but all capable, if the exposures are within practical and usable limits, of yielding pleasing and realistic gradations of light and shade in the prints. Whereas, going by the old methods of inspecting the negatives during the process of development, the worker has only the density to guide him. He may delude himself into thinking he is judging also of the contrasts, but this is quite impossible in the dark-room. Indeed, after a negative is developed, fixed and inspected against the sky no expert can tell to a nicety what will be the rendition of the lights and shades in the print. For a critical judgment his resort must be the printing-frame. Going, then, solely by the density, with his properly-timed exposures he will get good rendition of the contrasts, but to escape over-density he will inevitably take out his over-exposures too soon, which will result in dull prints, and he will leave his under-exposures in too long, which will yield harsh and over-contrasty prints. Within the wide limits of usable exposures the worker by time-development will get negatives varying in density, but uniform in pleasing and well-balanced prints; whereas the worker by the old methods will get reasonably-uniform negatives as to density, but many prints too dull on the one hand or too harsh on the other. Of course, to get prime photographs, the natural or controlled lighting should be good; but with these, and reasonably-timed exposures, there is no reason why with an intelligent use of time-development we should not always correctly register in our prints what is before the lens.

But, as excellent as time-development is, to get satisfactory results we must be precise in carrying out all of its details. There are four factors to be reckoned

with: (1) strength of solution; (2) extent of movement of solution over the plate or film; (3) time of the development; (4) temperature of the solution. The first three may readily be controlled, but the last will frequently need more care, and it is here where the abuses most commonly come in. We may aim at the  $66^{\circ}$  temperature as our basis, but we do not always get it.

In warm weather, when the temperature of the plates and receptacles is high, we cannot well know exactly how much colder than the  $66^{\circ}$  to make the solution so that the equated or resulting temperature will be  $66^{\circ}$ . Neither can we correctly estimate for the reverse conditions of cold weather. Consequently, we must employ the resulting or equated temperature as we find it by test, and make use of a sliding scale of time to correspond. Now to find this sliding scale. Abundant and trustworthy experiments show that within the usual degrees of temperatures of development a rise of about  $14^{\circ}$  will cut the time of development just one-half; that is, if it should require twenty minutes at a temperature of  $58^{\circ}$  to make the development, a rise to  $72^{\circ}$  would complete it in just ten minutes. From this data the mathematician can by his logarithms construct the time-curve for each particular degree to a nicety. We will, however, be satisfied with every two degrees — the even ones as registered upon the ordinary thermometers. If we take the series 18, 20, 22, 24, 27, 30, 33, 36, we will have the points of this time-curve for every two degrees, within an error of only about three per cent — errors quite too small to be noticed here. By halving or doubling this series we can have a scale of time for any of our requirements. For convenience, this is done in the table opposite, which provides for the strongest developing-solutions down to the weakest.

The use of the table will be readily understood. As before said, it covers the use of very strong solutions down to very weak ones. The column under the  $66^{\circ}$  is the objective or basic temperature; but all within the scope of the table will give satisfactory results. If we are using a

twenty-minute solution — twenty minutes at  $66^{\circ}$  temperature — and we find upon test that our solution is  $70^{\circ}$ , we pass to the left and under the  $70^{\circ}$  we find  $16\frac{1}{2}$  minutes to be the proper time for the development. If, instead, the temperature was found to be  $62^{\circ}$ , under the  $62^{\circ}$  we find twenty-four minutes as the proper time. And so on, for any other time of development or for any other temperature.

Much of the time the temperature of the dark-room will be within the limits of the table — from  $58^{\circ}$  to  $72^{\circ}$ . When such is the case, and when the developing-water,

**Table of Development in Minutes  
For Corresponding Degrees**

DEGREES, FAHRENHEIT.								
$72^{\circ}$	$70^{\circ}$	$68^{\circ}$	$66^{\circ}$	$64^{\circ}$	$62^{\circ}$	$60^{\circ}$	$58^{\circ}$	
$2\frac{1}{4}$	$2\frac{1}{4}$	$2\frac{3}{4}$	3	$3\frac{1}{4}$	$3\frac{1}{4}$	4	$4\frac{1}{2}$	
$2\frac{1}{2}$	$2\frac{1}{2}$	3	$3\frac{1}{4}$	$3\frac{1}{4}$	4	$4\frac{1}{2}$	5	
$2\frac{3}{4}$	3	$3\frac{1}{4}$	$3\frac{1}{4}$	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	
3	$3\frac{1}{4}$	$3\frac{1}{4}$	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	
$3\frac{1}{4}$	$4\frac{1}{2}$	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	$6\frac{1}{2}$	
$3\frac{3}{4}$	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	$6\frac{1}{2}$	$7\frac{1}{2}$	
$3\frac{1}{2}$	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	$6\frac{1}{2}$	$7\frac{1}{2}$	$8\frac{1}{2}$	
4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	$6\frac{1}{2}$	$7\frac{1}{2}$	$8\frac{1}{2}$	
$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	$6\frac{1}{2}$	$7\frac{1}{2}$	$8\frac{1}{2}$	9	
5	$5\frac{1}{2}$	6	$6\frac{1}{2}$	$7\frac{1}{2}$	$8\frac{1}{2}$	9	$10$	
$5\frac{1}{2}$	6	$6\frac{1}{2}$	$7\frac{1}{2}$	$8\frac{1}{2}$	9	$10$	$11$	
6	$6\frac{1}{2}$	$7\frac{1}{2}$	$8\frac{1}{2}$	9	$10$	$11$	$12$	
$6\frac{1}{2}$	$7\frac{1}{2}$	$8\frac{1}{2}$	9	$10$	$11$	$12$	$13\frac{1}{2}$	
$7\frac{1}{2}$	$8\frac{1}{2}$	9	$10$	$11$	$12$	$13\frac{1}{2}$	$15$	
$8\frac{1}{2}$	9	$10$	$11$	$12$	$13\frac{1}{2}$	$15$	$16\frac{1}{2}$	
9	$10$	$11$	$12$	$13\frac{1}{2}$	$15$	$16\frac{1}{2}$	$18$	
$10$	$11$	$12$	$13\frac{1}{2}$	$15$	$16\frac{1}{2}$	$18$	$20$	
$11$	$12$	$13\frac{1}{2}$	$15$	$16\frac{1}{2}$	$18$	$20$	$22$	
$12$	$13\frac{1}{2}$	$15$	$16\frac{1}{2}$	$18$	$20$	$22$	$24$	
$13\frac{1}{2}$	$15$	$16\frac{1}{2}$	$18$	$20$	$22$	$24$	$27$	
$15$	$16\frac{1}{2}$	$18$	$20$	$22$	$24$	$27$	$30$	
$16\frac{1}{2}$	$18$	$20$	$22$	$24$	$27$	$30$	$33$	
18	$20$	$22$	$24$	$27$	$30$	$33$	$36$	
$20$	$22$	$24$	$27$	$30$	$33$	$36$	$40$	
$22$	$24$	$27$	$30$	$33$	$36$	$40$	$44$	
$24$	$27$	$30$	$33$	$36$	$40$	$44$	$48$	
$27$	$30$	$33$	$36$	$40$	$44$	$48$	$54$	
$30$	$33$	$36$	$40$	$44$	$48$	$54$	$60$	

the receptacles and the plates have been in the room sufficiently long to have acquired its temperature, then no change need be made in the temperature of the water or the solution; for the temperature of the solution may be taken as that of the room, as registered by the thermometer placed near these articles. Under such conditions the development is simplified. If, for instance, the thermometer shows the tem-



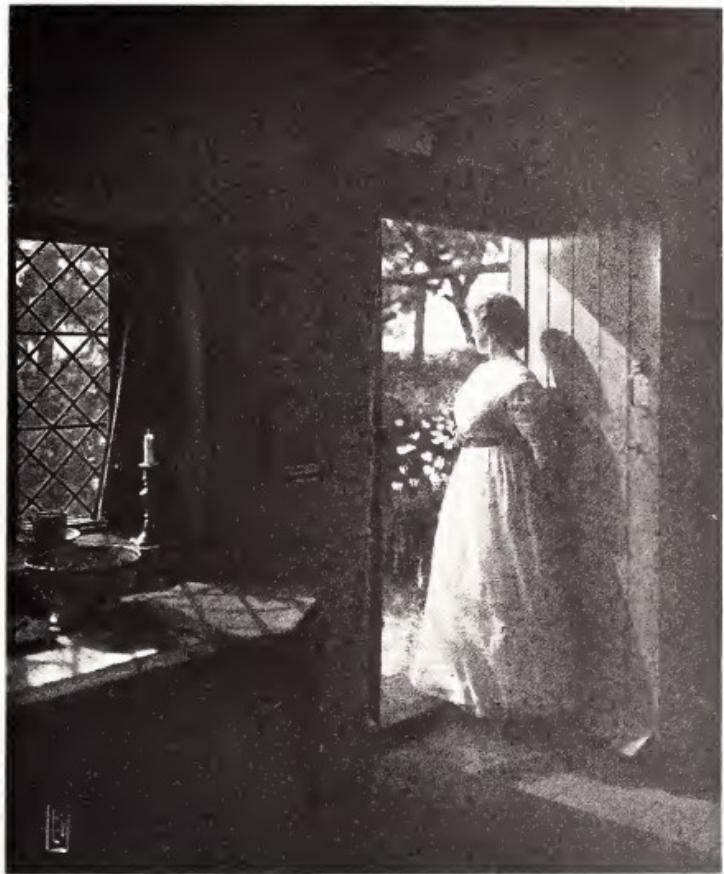
JAMES STREET, LINCOLN, ENGLAND

BERTRAM COX

perature of the room to be  $60^{\circ}$ , and we are using a twelve-minute solution, we simply find the 12 under the  $66^{\circ}$ , and pass to the right, and under the  $60^{\circ}$  we have  $16\frac{1}{2}$  minutes for the development, all without taking any temperature of the solution whatever. It must be remembered, however, that open water and all other open liquids will, due to evaporation, be always several degrees lower in

temperature than the room. Therefore, correctly to use this method, we must make it a rule to keep the water in the room stoppered.

But it often happens that the temperature of the room is beyond the limits of this table—that it is either higher or lower than the  $58^{\circ}$  to  $72^{\circ}$ . In that case proceed as follows: if it is higher, then make the initial temperature of the solu-



AT THE OPEN DOOR

E. T. HOLDING

tion about  $60^{\circ}$  or lower, pour it into the tray or tank, and after waiting somewhere about one-third of the time of development take its temperature again, the last temperature being that which is to govern us for the precise time. But if the temperature of the room is lower than shown by the table make the initial temperature of the solution about  $70^{\circ}$  or higher, and proceed as in the foregoing.

The stronger solutions are generally used in trays; the weaker, in tanks. If there is much aberration in the timing of the exposures both theory and experiments point to the weaker solutions. With fairly good exposures about a twelve-minute solution in a tray is preferable.

It must be remembered that the more the solution is set in motion the quicker the development. Therefore, for uniform



NUDE STUDY

MRS. JEANNE E. BENNETT

results, it is necessary to adopt some uniform standard here.

Contrary to the belief of some, it is not at all necessary to confine ourselves to pyro in time-development. Any standard developing-agent lends itself to this purpose. All one needs to do is to learn the developer he is using.

It is best for the worker to determine all of his conditions for himself. If he does not do this he will never become very successful. Let him use the kind and strength of developer he may choose, and then test for himself for the proper time. Let him carefully experiment with his conditions, and when he has produced a negative, not

so much that looks well, but that yields prints with well-balanced lights and shades, he will then have the key to his conditions, and ought always to accomplish the like again by carefully employing the same conditions.

The foregoing is written for straight photography; i. e., the correct and realistic rendition of that which is before the lens. Those who strive for a spirit and effect not before them, but existing in their own minds — a concept of fancy and not a faithful rendition of the real — will not only modify the development, but will "doctor" the negative after it has been fixed.



THE REST IS SILENCE  
ALEXANDER KEIGHLEY



# Supplementary Positives

## A Method to Modify Contrasts in a Negative

G. H. BETHELL

THE principle of the supplementary positive is one which was first introduced by Mr. Steiglitz for lantern-slide work, only in that case the slides themselves being positives, the supplementary plate was a negative. Still, the principle was there; and once that having been enunciated, its application to other forms of photographic work naturally followed. Perhaps, before going more into detail as to how supplementary positives can be made, and how they are used, it would be well to explain what a supplementary positive is.

Suppose we have a negative which has been properly exposed but considerably over-developed. It may give a strong contact-print in platinum or carbon, but it is much too harsh to use for enlarging. In the dark-room an ordinary plate is laid upon it, in a printing-frame, film to film, and an exposure is made, and a positive developed up, taking care to keep it very thin. When the positive is fixed, washed and dried, and placed in contact with the negative, the two images being carefully registered, the negative will look very slightly more opaque, but its contrasts will all be lessened.

It is easy to see why this is so. Wherever the negative is very dense there is little or no deposit on the positive. Wherever it is at all transparent there will be deposit on the positive, which will make that part less transparent.

So it follows that however thin the positive may be made, it is sure to increase the general opacity of the negative, although the contrast of the negative is lessened, and the resulting enlargement may in this manner be made as soft as we wish, even to the complete suppression of all the picture on it if we care to go to the *reductio ad absurdum*.

The power which such a supplementary positive conveys is one which does not

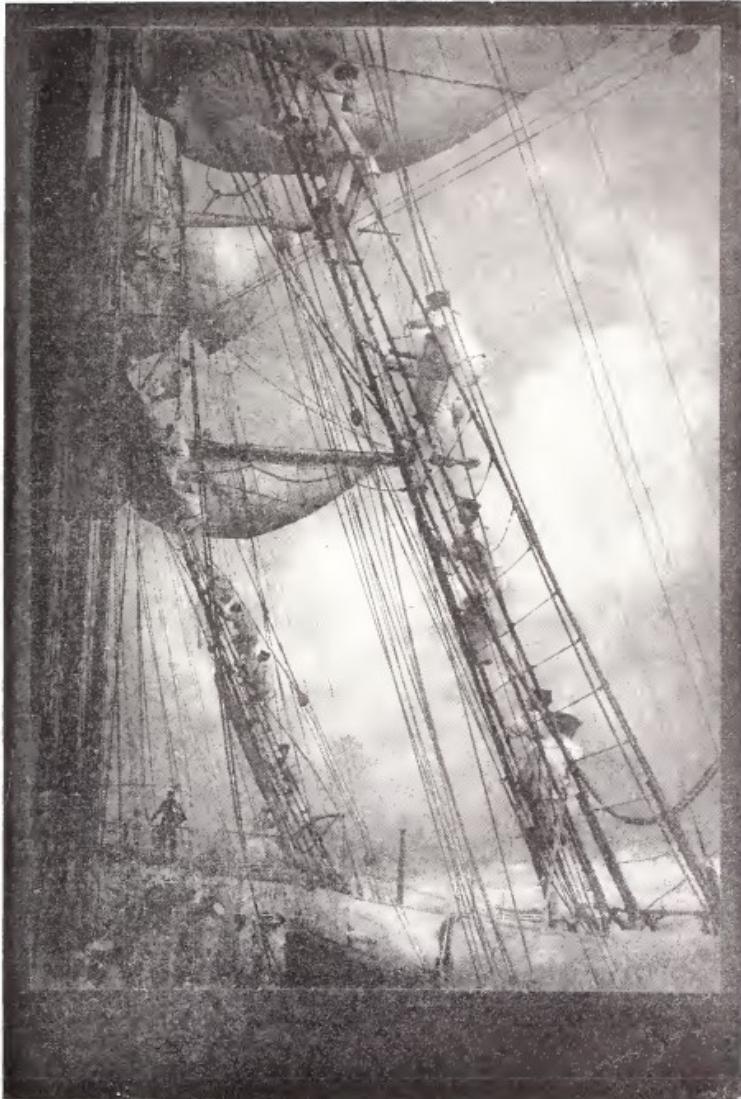
seem to have been used as it might. It forms almost the only method by which we can locally modify contrasts on a negative that is to be enlarged. The use of matt varnish and of tissue-paper is not possible in such circumstances, as the hand-work would be magnified, and would show. But by making a supplementary positive we can get over all this very satisfactorily.

If there is any part to be softened we can effect it by taking the positive and reducing all the other parts with ferri-cyanide and hypo, until there is no image left upon them at all. This is easily done by applying the reducer with a brush, holding the positive near a tap with running water, and slipping it under the tap from time to time to prevent the action of the reducer from spreading. Any hard lines in the reduction should be softened by going over them with a brush with dilute reducer.

It is also possible sometimes to follow details of the picture, reducing right up to the edge of the detail, and letting its boundary form the boundary-line of the reduction. To do this, the reduction should be effected upon the positive while its film is dry, placing it level on a sheet of white paper, and following the outlines carefully with a brush. All the little irregularities of the outline should be dealt with first, and when these are represented by clear glass the bigger areas may be reduced. Unless the positive is too dense altogether, there is not much fear of the outline of the reduction showing in the enlargement.

A little thought will show the photographer that it is possible to control not only the extent of the alteration introduced by the supplementary positive, but also to control its character.

For example: if the exposure of the positive is kept short, but the develop-



AWAY ALOFT  
F. J. MORTIMER, F.R.P.S.





THE LONE CEDAR

E. M. ASTLE

ment is pushed on, we shall get a positive that is similar in character to an under-exposed negative; that is to say, it will have a good deal of vigor in the parts which lie under the shadow-parts of the negative, but the high-lights of the negative — that is to say, the shadows of the positive — will be represented by clear glass. Such a positive, while exercising very little effect on the high-lights of the negative to which it is applied, will make the shadows appear less heavy in the print, although it will not increase the detail visible in them.

On the other hand, by giving a full exposure to the positive, and developing it lightly, we can get a result which will simply flatten the whole of the contrasts a

little. The process will be found to be a very elastic one, and a few trials will serve to show better than any lengthy verbal description the uses to which the method can be put, and the way in which the positives can be varied to suit the requirements of each special case.

There is not much that need be said upon the details of making these supplementary positives, as the process is a very simple one. Any make of plate may be used, but the easiest will probably be found to be lantern or transparency-plates. My own are generally made upon the Ilford "black-tone" plates, which are bought ready backed. The developer used is hydroquinone, as this gives a fine black deposit, the density of which is



SUNSET

LEONARD MISONNE

more easily judged than when the image has a brown or greenish-black color.

It is most important to give the plates a washing of at least a minute under the tap between development and fixing, or stains may result.

The tendency at first is to make the supplementary positive too vigorous. This is best avoided by having plenty of yellow light in the dark-room, and stopping development as soon as the plate, on looking down at it as it lies in the dish, appears to have about as much contrast as a good bromide print should possess. It is easier to judge in this way than by looking through the positive, which also would necessitate clearing off the backing, an operation more conveniently performed after development and fixation.

A supplementary positive is not so useful for contact-printing, as the thickness of the glass between the positive and the negative to which it is applied makes its action not so definite and precise; but there still are occasions where it may be

found of use. For this purpose, in making the positive, the plate cannot be used backed, as its glass side, which should be carefully cleaned, has to go in contact with the film side of the negative. This gives an image which is slightly diffused in definition. The positive so obtained is attached with its film side in contact with the glass side of the negative, and to avoid any apparent want of registration the printing should be done in a well-diffused light.

I have succeeded very well in softening the contrasts of a negative in this way; but it is certainly easier to get a good result by using the positive in contact with the negative, film to film, and enlarging from the combination, as has been described above. It will be found that there is no difficulty in registering the two plates. They are merely held up to a good light and slid over one another until the fit is seen to be exact, and then bound together with gummed strips of paper.—*Photography and Focus*.

## EDITORIAL

### "To Stop Moving Pictures"

THE caption to this editorial is a head-line in an exchange which caught our eye, recently. We wondered what, in this land of the free, is to prevent a picture-dealer from disposing of his stock; but perhaps we were wrong and the statement referred to the moving of pictures in another sense; viz., in a wagon or van from one place to another, like furniture, pianos, etc. And yet there is a probability that the reporter had in mind the busybody who visits art-museums and disturbs the pictures on the walls. Mentioning the matter to a newspaper-man, a few days afterwards, we were at once set right, being informed that the head-line in question referred to an order of the Board of Aldermen of a certain city to stop the display of motion-pictures in a second-class vaudeville house.

How long will it be before writers for the press will realize that "motion" or "kinematograph" pictures is the proper designation of what they erroneously style "moving pictures"? But unless they make even this incorrect term a compound word there is room for ambiguity. As a matter of fact, kinematograph pictures, if properly projected, *do not move*. What is seen is a quick succession of stationary pictures — in reality lantern-views — which simulate motion; hence, "motion-pictures," if you please, gentlemen!

### Guaranteeing Apparatus and Supplies

THE old-time mercantile expression, "Satisfaction guaranteed or money refunded," or the same thing in a modified form, is still popular with a large number of manufacturers and dealers. Unfortunately, the phrase has lost much of its force, because the guaranty of a certain class of merchants counts for little or nothing. These enterprising, but thoroughly mercenary, concerns have no in-

tention whatever to satisfy a customer in case an article sold by them has proved unsatisfactory. They are always prepared to meet complaints, however just, with an explanation or argument by which they may avoid responsibility. Methods like this may ensure pecuniary profit, but they do not make for business-integrity.

A certain make of shutter, advertised far beyond its actual merits, and supported by testimonials mostly of a fictitious character, has proved to be a disappointment to many. We know of numerous instances in which this expensive and intricate shutter went out of commission at the critical moment. Several well-known pictorialists, having this particular make of shutter fitted to their favorite anastigmat lenses, found themselves in a serious predicament when, soon after their arrival in a foreign country, their costly exposing-device utterly failed to act! Consequently, the hapless camerists were obliged to purchase inferior cameras — the only kind available — rather than return empty-handed.

Another unwise investment is a certain type of reflecting-camera. The advertisements are plausible enough, but the workmanship of the camera is so inferior that no self-respecting dealer cares to be identified with it. In a case of this kind a guaranty is obviously valueless.

We have in mind, also, several dealers in second-hand cameras and lenses who advertise, quite ostentatiously, that everything they sell is absolutely guaranteed. This is ludicrous, to use a mild term, for these concerns themselves need to be guaranteed. Their business-standing is not enviable, and they can buy nothing except for cash. PHOTO-ERA does not include such firms among its advertisers, nor will it recommend them, publicly or privately.

A strictly high-class firm has no need to publish a guaranty in its advertisements. A well-deserved and permanent reputation for square dealing is the best asset of any

merchant or dealer, and it is something which his customers are always pleased to mention; while he whom a dealer has treated unfairly is not disposed to circulate the news of such an experience, lest it might impeach his sagacity; and thus the offending tradesman escapes undesirable publicity.

### Untrustworthy Writers

**R**ECKLESSNESS of statement often gets the mastery of the ambitious, but ill-equipped, writer for the photographic press, as was the case of a contributor to the house-organ of a well-known photographic supply-house. In urging his readers to become technically proficient in their work, he cited as an example of successful achievement the famous picture "Mona Lisa," by Leonardo da Vinci. Evidently our friend had not seen the original painting referred to; otherwise he would not have stated that it represented an attempt upon the part of the famous master to catch the witchery of the human smile. He then concluded by saying that, doubtless, no human hand could have exactly reproduced it again. All this was true of this wonderful masterpiece before it was hopelessly and completely ruined by the hand of the restorer.

John C. Van Dyke, the accurate and widely-recognized authority in art-matters, writes as follows about the present condition of "Mona Lisa":

"Ah, no! Many of the noblest and the best of pictures have been almost destroyed by time and bad restoration. The canvas which hangs upon the wall in a bright frame with a famous name attached is often only a pretense — a thing of shreds and patches. Let me begin at once to be specific. The 'Mona Lisa' is far removed from the picture Leonardo let pass from his hands. It is only a pale ghost of its former self. All the carnations of the face that Vasari tells us about have flown, and given place to leaden hues. The subtlety of the lights and shades, the flow of graceful contours, the beautiful drawing of the cheeks, the forehead and the throat, the charm of the costume and the perspective of the background — all

have been worn away, almost scrubbed out of existence, by cleaners' hands and a what-not of chemicals. It is a wreck — a precious thing, to be sure, because we have so little left to us by Leonardo; but only a beautiful wreck!"

### Beautified Reproductions of Works of Art

**A**MONG the anomalies of progress is the invasion by photographic retouching of the field of art. With this painters themselves have nothing to do. It is merely a desire of publishers to cater to the dear public — those lovers of pictures who lack understanding and discriminative judgment in art-matters. We refer to a series of photographic reproductions of famous paintings issued by a well-known European art-publishing house. The negatives of these copies have been so carefully retouched that every trace of character and expression has been obliterated. Those who have seen the original paintings in the National Gallery, and elsewhere, will remember that they exhibit the usual symptoms of age and neglect, such as paint-cracks and chromatic inequalities. In the photographic copies, above referred to, all these, together with the character and modeling of the original pictures, have been replaced by a surface which is perfectly smooth and meaningless. Of the reproductions which have been subjected to this beautifying-process may be mentioned such well-known subjects as "Innocence" and "Samuel," by Joshua Reynolds, and others of the English school. Not even the works of Rembrandt have been spared. Art-lovers and students who have never seen the original masterpieces should exercise caution in the selection of photographic reproductions, even from among those of European publishers.



*Study of creations of art of glorious epochs teaches us that every work of art must be in harmony not only with received ideas but also with independent artistic ones.* — PAUL MANTZ.

# THE CRUCIBLE

A MONTHLY DIGEST OF FACTS FOR PRACTICAL WORKERS

With *Reviews of Foreign Progress and Investigation*

Conducted by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department  
Address all such communications to Phil M. Riley, 383 Boylston Street, Boston

## Green Tones on Cyko

At times users of Cyko seem interested in producing a green tone, and we will mention a formula published in a recent magazine intended for bromide paper, but which we have tried in connection with Cyko and it seems to work satisfactorily. Three solutions are required, as follows:

### Solution A

Potassium ferricyanide .....	77 grains
Ammonia .....	5 drops
Water .....	3½ ounces

### Solution B

Ferric ammonium citrate .....	33 grains
Hydrochloric acid .....	80 minimis
Water .....	3½ ounces

### Solution C

Sodium sulphide .....	15.5 grains
Water .....	3½ ounces

Then add

Hydrochloric acid .....	80 minimis
-------------------------	------------

This solution may become turbid, but no attention need be paid to that. The toning is done as follows: The print after washing is placed in Solution A until bleached through to a light brown. This usually takes from two to three minutes. The solution is now poured back into the bottle and the print washed until the whites are free from the yellow color of the ferricyanide. Upon the thoroughness of this washing the ultimate purity of the whites depends. Having washed the print, it is placed in Solution B for five minutes, then rinsed once or twice and transferred to Solution C for five minutes. A short washing completes the process. Should the whites of the print appear tinted pale blue while it is wet, this need cause no alarm, as the coloration practically disappears after drying.—*Portrait*. [While this is recommended for Cyko, it will probably yield good results with other gas-light papers.—P. M. R.]

## A Simple Negative-Dryer

A CORRESPONDENT of *The British Journal of Photography* suggests the following method for drying negatives over night in damp weather:

"At this damp season a good way to ensure your negatives being dry and ready by the first thing in the morning following development is to hang on wall a wire negative rack to hold twenty-four negatives about a foot above a gas bracket, and between the two suspend from the

rack horizontally an empty platinum can with cover on and a hole about the size of a penny cut in the middle of the under side just over the burner. By leaving a very small jet of gas burning all night under the hole it forms a hot-air chamber, and distributes heat equally the length of the rack. Of course, negatives must be wiped surface-dry with a chamois leather, as any spots of water left on would show.



"If center of can above the hole heats quicker than the ends a small, flat piece of tin slipped in over the hole compensates and distributes it better; one can soon regulate height of the flame to the greatest heat that can be safely used, and also the time wanted to dry."

## Edinol-Hydro for Bromide Paper

MR. HARRY COUTANT, of the New York Camera Club, has worked out the following formula for Wellington bromide paper, which he finds exceptionally good.

### Edinol-Hydroquinone Developer

Water .....	50 ounces
Edinol .....	½ ounce
Hydroquinone .....	1 "
Sodium sulphite, anhydrous .....	3½ ounces
Sulphite carbonate, anhydrous .....	6 "
Potassium bromide .....	60 grains

Dissolve in hot water about 180°. For use take one ounce to five ounces of water.

## The Strength of Hypo

**FIXING-BATHS** for gaslight and bromide papers consist of a one to four solution of hypo in water plus a hardening-solution consisting of alum, acid (acetic or citric) and sodium sulphite. With ordinary crystal or pea hypo a one to four hypo solution will test 40 to 50 with the hydrometer, which are the limits within which one should work. With some brands of granulated hypo a one to four solution will test from 50 to 80, which is often the cause of prints bleaching in the fixing-bath. Different brands of hypo vary so in strength that it is economy to test the solution by hydrometer and add more water or hypo as indicated before adding the hardening-solution. Hydrometers cost but little and are of service in many cases. All soda salts vary in strength, and the hydrometer test is the only final criterion for the preservative and alkaline solutions of a developer. The use of the hydrometer makes for uniformity in results, especially in time or tank development.

### Fixing P. O. P. Before Toning

In an interesting series of experiments Messrs. Lumière and Seyewetz have proved quite conclusively that the most economical method of working the combined bath for printing-out papers consists in fixing the prints before toning. The method is not new, but its quantitative results have never before been so carefully tabulated. These tireless investigators have gone so far as to determine the exact quantity of gold required for toning one  $5 \times 7$  print, which they find to be .008 of a grain. Their experiments, also, show the importance of the quantity of unused gold remaining in an exhausted toning-bath, since, even under the best conditions, one can use only two-thirds of the full amount in the formula.

It is well known that after about one hundred  $5 \times 7$  prints have been toned in a combined bath containing  $1\frac{1}{2}$  grains of gold chloride toning proceeds slowly, details are eaten out and the tone of the prints becomes reddish, although there is still a considerable amount of gold remaining in the bath. Ordinarily it is the custom to strength-

en the bath by adding fresh solution, but such a course does not permit the gold, already inactive in the bath, to be utilized, and the further toning-action obtained is in fairly close proportion to the quantity of new bath added. There is no advantage in such a course, and, in fact, serious objection to it, because of the accumulation in the bath of double silver hyposulphites and, also, other substances, such as citric acid from the paper, all of which more or less quickly decompose the bath.

The experiments of Messrs. Lumière and Seyewetz have been conducted to find what method of using the combined bath permits the most complete utilization of gold without loss of quality to the toned prints. With this idea in mind they have ascertained the quantity of gold left in the bath after the toning-action has been effected in different ways upon the number of prints sufficient to exhaust the gold in the bath. In all of the experiments the following toning-solution was used:

Water	20	ounces
Hypo	5	"
Alum	130	grains
Lead acetate	18	"
Gold chloride (1% solution)	1/4	ounce

This bath was used in two principal ways:

1. To tone the prints in succession.
2. To tone together several prints equal in number to those previously toned in succession.

Further, each of these methods was employed in two different ways:

A. By toning and fixing in the combined bath in the ordinary way after having given the prints a preliminary washing in water.

B. By removing the silver salts from the prints by preliminary fixing before immersion in the combined bath.

The latter method has the advantage of preventing the accumulation of double silver hyposulphites in the bath, thus, as Messrs. Lumière have previously shown and as R. Namias has confirmed, removing one of the causes for the falling off in tone when treating a large number of prints. The results of the experiments are shown in the following table:

Method of using combined bath	No. of $5 \times 7$ prints toned in 100 ccs. toning-bath containing .0264 gm. gold	Time of toning of first print and last print	Proportion of gold used in toning compared with that put into bath
Prints toned and fixed in combined bath a. Toned in succession ... b. Toned together without previous fixing ...	24	First print ..... 4 minutes Twenty-fourth print ..... 25 minutes	60
	24	..... 25 minutes	52
Prints first fixed in hypo and then toned in combined bath a. Toned in succession ... b. Toned together	30	First print ..... 4 minutes Thirtieth print ..... 25 minutes	70
	30	..... 25 minutes	63



LIE TOY-CUPBOARD  
HERMANN ZIESEMER



# THE ROUND ROBIN GUILD

*An Association of Amateur Photographers*

Conducted by ELIZABETH FLINT WADE

This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography, although advanced camerists are just as welcome and many are numbered among its members. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free and may be obtained by sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston.

Send a stamp for complete prospectus.

## Gum-Bichromate Printing

SECOND PAPER, THE PIGMENTS

As soon as one becomes somewhat expert in the coating, printing and developing of the gum-print he may venture more. Indeed, that is just what this elusive printing-process leads one on to do. First, in the matter of colors; for one is not content always to use the same color-pigments, though even if he does, no two prints are ever exactly alike.

In the many articles which have been written on gum-prints one finds very meager directions as to the mixing of the paints to produce certain tones; in fact, it is only now and then that one finds even a limited list of the pigments which will work well with this process. I have a handbook on the subject which, while it is supposed to be a thorough guide, does not even mention what kind of pigment to use, nor even give hints about color. The writer evidently supposes his readers to be familiar with that important part of the process, or else to be able to mix their colors by intuition.

Among the pigments which I use are the following: Venetian red, Indian red, red ochre, crimson lake, vermillion, burnt umber and raw umber, burnt sienna and raw sienna, chrome yellow, Indian yellow, Vandyke brown, Prussian blue, bistre, warm sepia and lampblack.

The desired tones are obtained by mixing these colors in certain quantities.

The pigment is always added last to the gum-bichromate mixture, and, therefore, when trying for some particular tone, the different pigments should first be mixed by themselves, then a small quantity taken out, thinned with water and the color tried on a piece of paper. If it is not of the shade one is striving for then the pigments may be added until by trials on the paper the tone is satisfactory, and then they may be added to the gum-bichromate. If the colors do not rub well together then one can add a few drops of gum-solution to moisten the paints and make them assimilate.

Directions were given for mixing reds, which are the transparent colors, and which are, therefore, the best for the beginner to practise with. The browns are more or less opaque, yet they may be given a look of transparency if one is careful about the mixing and the spreading.

Lampblack, judiciously used, will make very beautiful prints by itself alone. So will bistre, which is a brown pigment prepared from wood-soot, as lampblack is prepared from lamp-soot. Both are improved, however, by the addition of a bit of yellow to give a warmer tone to the print.

For a warm black use lampblack and burnt sienna, taking twice as much of the lampblack as of the sienna. This gives a tone which is specially good for certain portraits, and is also a most effective tone for a picture where trees showing bark and branch are depicted. It should not be used for pictures of the woods in winter, it not being quite cool enough in tone.

For warm browns mix Indian red and bistre, letting the bistre predominate. Most beautiful tones of brown, suitable for portrait or figure-work, are brought out by the combination of these two colors.

Cool browns are made by mixing a little Prussian blue with Vandyke brown. Sepias of all tones ranging from warm to the cool browns are made by mixing burnt umber with the different reds; for one coating taking Venetian red; for another, Indian red, etc.

Reddish browns are made by mixing bistre, burnt umber, Venetian red, and adding a touch of crimson lake.

For different shades of greens, use Prussian blue and the different yellows, according to the tone of green desired. More of the blue gives a deeper tone; more of the yellow gives the grass greens. Olive green is the result of adding a little lampblack to the Prussian blue and the yellow.

For blues, mix a little lampblack with the Prussian blue for cool tones, and a little Venetian red with the blue for warm tones.

Copper-color is sometimes a very pleasing color to use with a print designed for decorative work. This is obtained by mixing Venetian red, chrome yellow and lampblack. Sometimes a very pleasing tone is made by substituting bistre for the lampblack.

The main point in mixing the colors is to have them first thoroughly combined before adding them to the gum-bichromate; therefore one should always do as directed at the beginning of this paper — mix the colors and try them on a piece of paper before adding them to the gum-bichromate. Then, too, one should be generous



A MENTAL PROBLEM

J. W. PONS

with his pigments, so that there will be plenty to add to the sensitizing-solution; for it is quite impossible to duplicate a tone exactly in case it is found one has not quite enough color for the amount of gum-bichromate mixed.

One who has done color-work will have no trouble in mixing his colors; but for those who have not — and their number far exceeds those who have — these directions for mixing the colors ought to be specially helpful.

The brush-manipulation of the print will be the next detail treated in the articles on gum-bichromate printing.

#### Weighing and Measuring

THE terms of a formula are often very confusing to the beginner who has little or possibly no knowledge of chemistry. For instance, there is the matter of solutions — the stock; the saturated; the per cent, etc., etc. These are designated by their specific names as if the merest two knew their meaning, when in fact the terms are so much Greek.

A formula calls for a certain amount of a per cent solution. It may be a five, eight, ten or twenty per cent solution, but the formula does not tell how to compound it. The matter is, however, a very simple one to understand. The per cent is reckoned exactly as one reckons per cent in computing interest. Ten per cent of one hundred is ten. If, therefore, your formula calls for a certain amount of a ten per cent solution of bromide of potassium, for example, your ten per cent solution would be made of ten ounces of

the chemical to ninety of water; or to bring it down to usable proportions, one ounce of the chemical in ten ounces of water would constitute a ten per cent solution. If it were a twenty per cent solution then one would need double the quantity of the chemical and consequently less water, taking from the one hundred ounces twenty ounces of water, leaving eighty ounces; and made in quantities of ten ounces one would need two ounces of the chemical to eight ounces of water. If the formula called for a five per cent, then the amount of the chemical would be decreased, and instead of ten ounces to one hundred of water, one would use five ounces of the chemical and ninety-five of water, or nine and one-half ounces of water and half an ounce of the chemical. To our well-posted amateurs this may seem rather a lengthy explanation; but the editor finds the per cent solutions are one of the most puzzling things with which the beginner finds himself confronted.

A stock-solution is one that is made up in large quantities ready to use when needed, or is made in a concentrated form to be diluted with water when needed for use. Some chemicals keep very well when made up in stock-solutions, while others deteriorate in a short time.

A saturated solution is one which contains just as much of the chemical as the liquid is capable of dissolving and holding in solution. If one adds salt to water until it will dissolve no more, then the clear liquid would be a saturated solution of salt. In making up a saturated solution enough of the chemical should be added so that



SPECIAL PRIZE -- SELF-PORTRAIT COMPETITION  
J. WILL PALMER



FIRST  
PRIZE  
HOME-SCENES



ON THE STAIRWAY

CHARLES H. FLOOD

there is a deposit at the bottom of the bottle or vessel in which it is stored. When it has stood for twenty-four hours to settle, the clear liquid is decanted off and this is the saturated solution.

The proportions of formulas are not always given in the same terms. Sometimes they are given in grains and ounces; sometimes in drams and minimis; sometimes in grams and cubic centimeters; and, most confusing of all, they are sometimes given in "parts." Chemicals are usually sold by avoirdupois weight. It has long been the aim of certain scientific men to do away with both apothecaries' and avoirdupois weights and adopt what is called the metric system of weights and measures. This system is legalized by Great Britain and by the United States, and is in actual use in every civilized country with the exception of Russia and Montenegro. It has not, however, been made a universal system, and our schoolbooks will still continue to instruct us

in the apothecaries', the avoirdupois, and the Troy weight systems; so it would be a very good idea for the amateur to have at hand these tables when weighing and measuring his chemicals. If a printed leaflet is not to be had then copy the tables on a sheet of paper and tack it up in the workroom.

Going back to the metric system, we find that the unit of weight is the gram and the unit of liquid measure is the cubic centimeter. A gram is equal to fifteen and four-tenths grains. In the tables for general use the number of grams in an ounce is frequently given as thirty, though, to be strictly accurate, the avoirdupois has only about twenty-eight and one-half grams, while the heavier Troy ounce has over thirty-one. One very often finds a formula given in grams and centimeters and, his graduate not being marked for this system of measuring, it is a pretty piece of knowledge to be able to under-

THIRD  
PRIZE  
HOME-SCENES



THE PICTURE-BOOK

D. R. BATTLES

stand how to turn these terms into grains and ounces. As just said, the gram is equal to fifteen and four-tenths grains, but in converting grams to grains one uses the fraction one-half instead of the four-tenths. Multiply the number of grams by  $1\frac{1}{2}$  (the number of grains in a gram) and the result will be as many grains as is required by the formula. To convert cubic centimeters to ounces, divide the number of cubic centimeters in the formula by the number of cubic centimeters in an ounce, which is thirty, and the quotient will be the number of ounces.

When the proportions of a formula are expressed in parts, which is a very unsatisfactory way of having a formula given, then substitute grains or ounces and fractions of an ounce for the parts. Suppose you had a formula for a restrainer which called for 4,320 parts of water and 480 parts of bromide of potassium. Simply divide these numbers by the number of grains

in an ounce, which would give, in this case, nine ounces of water and one ounce of bromide of potassium.

In making up a formula one should read the directions and follow them faithfully, especially in the adding of the chemicals. They should always be mixed in the order given, not all dumped in together haphazard. Then each chemical should be dissolved, or almost so, before the next is added. During the mixing the solution should be stirred with a glass rod. In some formulæ one finds the proportions of the chemicals given and the directions say to add enough water to make the solution up to a certain number of ounces. In such a formula the chemicals are weighed, then the water added until the solution reaches the required number of ounces.

Care in weighing and mixing one's formulæ is one way to ensure success.

## Downhill Perspective

JUDGING from the number of letters that have come to the editor in regard to our April competition, the subject is one which puzzles many of our members. Downhill perspective is exactly what its name implies — showing in a photograph the effect of looking down a hill, or looking down from an eminence.

Uphill perspective is easy to reproduce because the line of sight is naturally low and the objects seen are above this line rather than below. Doubtless most of our members have seen pictures taken from balloons or from cameras sent up into the air with kites. It is almost impossible to look at these pictures and realize that one is looking down on the earth; for the reason that there is nothing in the picture to emphasize the fact. It is very easy to photograph a road winding up a hill and convey in the picture the fact that the road really runs up hill, but it is quite another proposition to go to the top of the hill and so photograph the road running down the hill that the picture conveys the impression.

To throw light on this subject further let me describe two pictures of excellent downhill perspective. The first shows a road winding across a plain and turning and ascending the hill at the top of which the spectator is supposed to be standing. The horizon-line is low and there are long, low clouds in the sky, which emphasize the effect of distance. Two-thirds of the way up the hill is seen a horse and carriage, while in the near foreground is a low, flat stone wall. The picture has been so taken that one seems to be looking down on these planes, the wall and the top of the carriage, and this gives the impression in the picture that one is looking downhill.

In the September number of PHOTO-ERA for 1908 will be found a most admirable study of downhill perspective. It was taken by our editor-in-chief, Mr. Wilfred A. French, and is a view of Lugano, Italy. The picture is taken on an eminence, and in the immediate foreground is the roof of a building at the left of which is a tall tower. One looks over the plane of the roof across the valley and the town, way beyond to the mountains in the distance. This picture, almost more than any other, gives the impression of looking down on the scene. The article in which the picture appears is by Anthony Guest, and the subject is "Aids to Downhill Perspective." It might be well for our members to look up this number and see the picture and read the article. The crux of the whole matter is to have the camera level, whether photographing uphill or downhill perspective, so that the plate or film shall be plumb. If necessary, the rising and falling front may be used to advantage. In securing the effect of downhill perspective a prominent line of sight, furnished by an object in the foreground, is of the utmost assistance, serving to separate the different planes and to give the distance below its relative position in the composition.

## The Round Robin Guild Monthly Competitions

*Closing the last day of every month.*

*Address all prints for competition to PHOTO-ERA, The Round Robin Guild Competition, 383 Boylston Street, Boston.*

### Prizes

*First Prize: Value \$10.00.*

*Second Prize: Value \$5.00.*

*Third Prize: Value \$2.50.*

*Honorable Mention:* Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention.

Prizes may be chosen by the winner, and will be awarded in books, magazines, enlargements, mounts, photographic materials or any article of a photographic or art nature which can be bought for the amount of the prize won.

### Rules

1. These competitions are free and open to all photographers, whether or not subscribers to PHOTO-ERA.

2. As many prints as desired, in any medium except blue-print, may be entered, but they must represent the unaided work of the competitor, and must be artistically mounted.

3. The right is reserved to withhold from the competitions all prints not up to the PHOTO-ERA standard.

4. *A package of prints will not be considered eligible unless accompanied by return-postage at the rate of one cent for each two ounces or fraction.*

5. *Each print entered must bear the maker's name, address, Guild number, the title of the picture and the month in which the competition occurs, and should be accompanied by a letter SENT SEPARATELY, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.*

6. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA. If suitable, they will be reproduced, full credit in each case being given to the maker.

### Subjects for Competition

March — "The Seasons." Closes April 30.  
April — "Downhill Perspective." Closes May 31.

May — "Sunlight and Shadow." Closes June 30.  
June — "Landscapes with Figures." Closes July 31.

July — "Marines." Closes August 31.  
August — "In the Country." Closes September 30.

September — "General." Closes October 31.  
October — "Scenic Beauties of America."  
Closes November 30.

### Awards — Self-Portraits

*Special Prizes:* J. Will Palmer and Paul Lewis Anderson.

*Honorable Mention:* T. W. Kilmer, John J. Reilly, Richard Pertuch, Beatrice B. Bell, Joseph M. Rogers, R. C. Watkins, John Schork.

## BEGINNER'S COLUMN

### Quarterly Contests for Beginners

In these contests all Guild members are eligible EXCEPT those who have received Guild prizes in the past. Aside from this restriction, the rules which govern the monthly competitions will be in force here and the prizes will be payable in the same manner.

All prints submitted, except prize-winners, will be returned if postage is sent.

#### PRIZES

*First Prize:* Value \$10.00.

*Second Prize:* Value \$5.00.

*Third Prize:* Value \$2.50.

*Honorable Mention:* Those whose work is worthy will be given Honorable Mention.

### Subjects for Competition

SNOW-PICTURES — CLOSES APRIL 15, 1910

Here is presented a very wide field, so that nearly every camerist may enter one print, at least. The pictures may be snow-covered landscapes in all conditions of weather, park-scenes, outdoor sports on the snow or ice and a variety of other subjects, including human life or not.

SOUVENIR-PHOTOGRAPHS—CLOSES JULY 15, 1910

It is intended that this competition shall include photographs made as souvenirs while away from home, whether in one's own country or abroad, or only on a short vacation-trip. Thus they will portray objects of historic or other interest, and incidents worthy to be recorded. Figures may or may not be included.

FAVORITE PETS — CLOSES OCT. 15, 1910

The subject of this competition seems self-explanatory, consisting, as it does, of dogs, cats, monkeys, rabbits, birds, etc., and tamed wild animals.

### Red Tones on P. O. P.

RICH reds resembling carbons in tone may be made on printing-out paper by the use of chloro-platinite for toning. The solution is made of two grains of potassium chloro-platinite and eight ounces of water, to which are added eight drops of nitric acid. The prints are first placed in a salt-bath, where they are thoroughly wetted. They are then transferred to the toning-bath and toned until the desired color is reached; then rinsed and placed in a weak fixing-bath. The action of the bath helps to deepen the red tone of the print. If one has a portrait-negative with delicate de-

tail, the figure rather small than otherwise, one may make a charming print by using this toning-solution to get the reddish tone; then squeeze the print to a piece of ground-glass which produces a fine grain and seems to give a softening effect to the picture. Collodion paper treated in this fashion gives very beautiful prints unlike anything else in the way of printing-out papers.

### Awards — Home-Scenes

*First Prize:* Charles H. Flood.

*Second Prize:* J. W. Pons.

*Third Prize:* D. R. Battles.

*Honorable Mention:* William Spanton, Auguste Kastendieck, Mary V. Fontaine, Constance Durrant.

Meritorious work was submitted by J. W. Newton, John Dove, Will F. Helwig, J. D. Reid, F. M. R. Robuts, Alice Margaret Dickinson, Clara Jacobson, Anna M. Shurtleff, Nick Bruehl, George P. Russell, W. C. Hodges, Mrs. H. R. Davis, Florence Marie Robuts, S. D. Edwards, George W. Heydenreich, Robert Ervien, Robert R. Lucas, Emilie Buzby, Mrs. Alice H. Knight, E. P. James, U. Le Roi Upson, Everett E. Neukom, W. B. Welles.



*"How small is he who has to lower others in order to elevate himself!"*

### Answers to Correspondents

Readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.

A. KALISH.—**Prints in Albums.** One way of putting prints into an album with soft leaves, and probably also the most satisfactory for such an album, is to cut little slashes at points which correspond to the size of the print and slip the corners of the prints into these slits, after the manner of a post-card album. I have just seen a collection of foreign prints of all sizes mounted this way in soft-leaved albums and the arrangement was a great success. Your questions in regard to ray-screens have been answered by mail.

A. ANDERSON.—**Metol-Hydro for Portraiture.** A formula for metol-hydroquinone developer will be found in the article on metol given in a recent number. Look for it under the head of developers. You will find this one of the most satisfactory developers for portrait-work, as it gives soft contrasts and brings out the detail, producing a negative of most excellent printing-qualities. You will also find it much cheaper to prepare your own developing-powders rather than to buy those already mixed as you have been doing.

**RICHARD RONAY.—Transfer-Medium.** The formula for a water-proof adhesive has been sent you by mail. Have you ever tried the new transfer-medium, Le Bo, advertised in our columns? You do not state to what use you wish to put your transferred prints — you might look up this preparation and perhaps it would answer your purpose admirably.

**GEORGE INGALLS.—Local Intensification.** Do not use vaseline for brushing over a film to protect the action of the intensifier on certain parts during local development. Use glycerine instead, as glycerine is soluble in water and is easily removed by soaking the film a few minutes in water, whereas to remove the greasy vaseline you would either have to use soap or cut the grease with alcohol or gasoline.

**J. GREEN.—Hardening Films.** A formalin bath for hardening film is made of one ounce of formalin to ten of water. The film should be left in this solution for five minutes, then drained and dried. The solution may be used repeatedly. **Stopping Development.** To stop development of a plate at once, place it in a citric acid bath, five grains of the acid to an ounce of water.

**JULIUS D.—Coloring Glossy Prints.** To make colors take on glossy prints use twenty grains of what is called ox-gall paste, five ounces of water, and one ounce of spirits. Dissolve the paste in the spirits, add the water and brush the mixture over the prints. A thin wash of gelatine will sometimes be sufficient to make the paint flow evenly on the surface of the prints. As a general thing it is wiser to leave prints in their natural color, in monochrome, rather than to seek to improve them by coloring. If colors are used they should be the transparent colors and should be used very sparingly.

**BERTHA B.—The Use of Litmus-Paper.** Red litmus-paper is used in testing for alkalies. When a piece of red litmus-paper is placed in a solution which is too strong the paper turns blue. Blue litmus-paper is used in testing for acids, the blue paper turning red in the solution if too strong of acid.

**D. L. H.—Scales for Weighing.** A set of photographic scales may be bought as low as fifty cents; but if one is planning a great deal of measuring and weighing, then a set of scales which is strictly accurate to the fraction of a grain should be chosen, such a set costing one dollar and a half. These scales are very convenient, for when not in use they fold into small compass and fit into a box, thus not only keeping them out of the way, but also preserving them from the dust.

**MILES G.—Intensification with Silver and Copper.** To intensify a plate with copper sulphate make up a solution of copper sulphate, allowing two hundred grains of the copper to each ounce of water. Dissolve in hot water. Make up another solution composed of three and one-third ounces of bromide of potassium dissolved in eight ounces of water. To use, take equal parts of each of these solutions, place the

plate face up in a tray and turn enough of the solution over it to cover it well. The plate must be left in the solution until the whitened image may be seen on the back of the plate. Wash for five minutes, then place in a tray containing a solution of nitrate of silver of the strength of forty grains to each ounce of water. This will blacken the image and the result will be a plate of good printing-quality provided the image had sufficient contrast at the beginning. If it is not dense enough after the bath in the silver-solution then develop in any good developer used for an ordinary negative. This method of intensification is to be preferred to the mercuric-chloride process, for the latter is not always a permanent success.

**CELIA N. C.—Rodinal Used Factorially.** The factor for rodinal is 40, which, as doubtless you know, means that when using this developer factorially you must develop it forty times as long as the time which it took to get the first appearance of the image. If the image came up in five seconds then the negative must be developed for a total of two hundred seconds ( $5 \times 40$ ), which is supposed to be the time at which all detail possible to bring out in the negative will have appeared.

**SETH KIBBE.—Distances in Lantern-Projection.** To calculate the approximate distance at which to place a lantern from the screen in order to get a picture of a certain size, first find the focal length of your lens, convert all other values to inches, and multiply the width of the image desired on the screen by the focal length of the lens and divide by the width of the lantern-slide opening.

**GRAHAM KING.—Removing Ink from Prints.** Your platinum prints which have been stained with ink may be cleaned by an application of a weak solution of oxalic acid. Of course the permanency of the stain depends entirely on the chemical nature of the ink. If it is one of the aniline inks it may be removed by using a five per cent solution of sodium sulphite made slightly acid with a few drops of citric acid. A solution of metabisulphite may also be used with good results. If the ink is one of the waterproof inks, or one of the jet black writing-inks, it is almost impossible to remove the stain. Unless the print is specially valuable perhaps the best way out of the difficulty would be to make a fresh print; that is, if the print is quite badly stained.

**ELLIS BARNES.—Cleaning Glass and Porcelain.** An effectual solution for cleaning photographic glass and porcelain dishes which have become badly discolored is made of one ounce of bichromate of potash dissolved in ten ounces of water. When thoroughly dissolved add slowly one ounce of commercial sulphuric acid. Stir with a glass rod and be very careful not to get any of the acid on the hands or clothing, as it burns quickly. In cleaning the trays use a swab tied to a stick, and throw away after use. The best plan is to clean one's trays with soap and water each time they are used, for the once

using cleans off very easily and avoids stains which have become set and impossible to remove. Stains from the developing of gaslight prints may be removed by substituting nitric acid in place of sulphuric. The sulphuric acid solution will also clean bottles stained from the storing of chemicals.

**DOROTHY MILLS.—Toning Bromides with Copper.** You can tone your bromide prints a very pleasing color by using copper as the toning-agent. A formula which gives excellent results is made up as follows: one-half ounce of potassium citrate, twenty-seven grains of sulphate of copper, forty-two grains of ferricyanide of potassium, and five ounces of water. Dissolve in the order given. If the solution is not clear, clear it by filtering. Moisten the bromide print in water so that it is thoroughly wet, then tone to the desired color in this solution. Wash well and dry.

**MARION B.—Printing from Thin Negatives.** When printing from a thin negative one should either print in the shade or else shield the negative from the sunlight by covering with either a sheet of ground-glass or else with a box-cover from which the top has been removed and the opening covered with a thin sheet of tissue-paper. Onion-skin paper is better than the ordinary tissue-paper, as it is free from unevenness and thus ensures evenness in the printing. Sometimes for very thin negatives printing through a green glass of light color will produce much better results than either of the ways suggested.

**L. H. TRINE.—Groups by Flashlight.** Making groups by flashlight cannot be said to be one of the most satisfactory ways of photographing several persons, for the reason that some faces are sure to be stronger lighted than others and there is a lack of harmony in the picture. If, however, you wish to make a trial arrange your sitters so that they are as nearly on the same plane as possible, have the camera placed so that the lens points to the center of the group, and in arranging the light see that it is at least at a point two-thirds the height of the group when seated. If the flash is set off at too low a point the shadows will be thrown upward and there will be distortion in consequence, while if it is placed too high the lower part of the picture will be too dark. Leave the lights burning in the room both before and during the exposure.

**HENRY P. G.—Birds.** Yes, it is quite time to begin one's bird-studies for the season, and one may learn where certain nests are situated simply by going to the woods, remaining quiet a short time and noting carefully the maneuvers of the feathered inhabitants. One may visit a nest from the time of the laying of its foundations till the hatching of the young birds, taking pains never to make a sudden or rough movement or in any way to molest the nest. One's costume, too, should be subdued in color, and if one goes regularly once a day at about the same time the birds become accustomed to the visits and learn to feel that they will suffer no harm. One of the pleasantest of summer pastimes is the study-

ing and photographing of birds, and while much has been done in this line there are many species yet unphotographed intimately. Then, besides the pleasure, there is always a sale for interesting pictures of bird-life.

### Print-Criticism

*Address all prints for criticism, enclosing return postage at the rate of one cent for each two ounces or fraction thereof, to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. Prints must bear the maker's name and address, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.*

**"THE PARK IN WINTER."**—This picture represents a view across a city park in early winter, the ground being lightly covered with snow and some of the trees yet retaining portions of their foliage. A path begins at the lower left-hand corner and winds diagonally across the picture till lost to view among the trees. In the immediate foreground at the right is seen a park bench, and the first impression is that there is a small creek or long, narrow ditch of water with a fence at the further edge. A closer study, however, shows that the seeming fence is really a bench. Now whether this was the skill of the artist or a happy accident in so bringing the bench into such a position as to produce this impression the artist does not say; but certainly were it not for this same bench the picture would be nothing more than a very ordinary scene which one sees every day in such surroundings. The picture emphasizes the fact that an effective object in the foreground, skilfully placed, makes a picture, while the lack of it mars a picture. The member who sent this print said in his letter that he was anxious to know whether his work had artistic merit, as he was anxious to excel in this direction. The print submitted of so commonplace a subject so well treated shows that our member is on the right road to attain artistic success. The print is not mounted, and is toned in a soft gray and is without strong contrasts, though the shadows lying across the snow show that the sun was shining.

**"BARBARA," B. T. E.**—This is a study rather than a portrait. It is the picture of a young woman with hair unbound and face turned to show a three-quarter view. The hair curves from the center of the forehead to the corner of the eye, then sweeps down the cheek to just below the ear, which it covers, and falls in soft masses to the waist. The gaze is downward, as if the subject were thinking deeply, or musing on some absorbing subject. The lights and shadows in this picture are exceptionally well managed, with the exception of a high-light on the nose, which instinctively attracts the eye,

and one sees the rest of the picture in the gradation of light rather than seeing it as a whole, as would be the case were it not for the obtrusive high-light. The drapery or gown is of some soft gray material, and instead of attempting to drape the cloth, which so many try and fail, the stuff has been made into a simple gown in a most admirable design for a picture of this kind. The hair is very well done, it having a soft, loose appearance, showing elusive lights and shadows, and were it not for the high-light in the wrong place "Barbara" would be a specially pleasing picture. The remedy for the high-light is to paint it out on the print.

"WINTER STUDIES," S. H. F.— This member of our Guild, whose home is in Oregon, sends three studies of winter. One shows a quantity of birches—at least, they look like white birches—some standing straight and erect, and one or two thrown down or leaning at an angle. At a little to the right of the center is a very tiny fall of water, and glimpses of the creek which

produces it are seen through the shrubbery. This picture is quite sharp and distinct, and is an admirable study in lines. Another picture taken from the same point of view, or else printed through some transposing-medium, is too much out of focus and has a blurred look. The other picture shows a growth of very young saplings, and is not of any artistic merit, but is interesting as showing how very dense these young trees can grow, and also is an evidence that while our forests are being denuded there are new forests springing up to take their places. A fourth picture sent by this member is a summer-picture, and shows a young woman seated in a hammock which is swung from the giant branches of what is evidently a patriarch of a tree. The subject is trite, but the picture of the tree itself is very interesting. This print is toned in gray and mounted on a brown mount which does not bring out the print as well as if it were mounted on a gray or on a creamy white. All of the prints are very well taken and well composed.

### Plate-Speeds for Exposure-Guide on Opposite Page

#### Class 1/3

Lumière Sigma  
Lumière Non-Halation Sigma

#### Class 1/2

Barnet Super-Speed Ortho

#### Class 3/4

Barnet Red Seal  
Imperial Flashlight

#### Class 1

American  
Ansco Film, N. C. and Vidil  
Barnet Extra Rapid  
Barnet Ortho Extra Rapid  
Barnet Studio  
Cramer Crown  
Cramer Crown Non-Halation  
Cramer Instantaneous Iso  
Cramer Inst. Iso Non-Halation  
Cramer Isonon  
Cramer Trichromatic  
Ensign Film  
Hammer Special Extra Fast  
Ilford Monarch  
Ilford Zenith  
Imperial Special Sensitive  
Imperial Non-Filter  
Imperial Orthochrome Special Sensitive

Kodak N. C. Film  
Kodoid  
Lumière Film  
Magnet  
Premo Film Pack  
Seed Gilt Edge 27

Standard Imperial Portrait  
Standard Polychrome

Stanley Regular

Vulcan

Wellington Extra Speedy

#### Class 1 1/4

Cramer Banner X  
Cramer Banner X Non-Halation

Eastman Extra Rapid

Hammer Extra Fast

Hammer Extra Fast Ortho

Hammer Non-Halation

Hammer Non-Halation Ortho

Seed 26x

Seed C. Ortho

Seed L. Ortho

Seed Non-Halation

Seed Non-Halation Ortho

Standard Extra

Standard Orthonon

Wellington Speedy

Wellington Film

#### Class 1 1/2

Lumière Ortho A

Lumière Ortho B

#### Class 2

Cramer Medium Iso

Cramer Medium Iso Non-Halation

Ilford Rapid Chromatic

Ilford Special Rapid

Imperial Special Rapid

Wellington Iso Speedy

#### Class 2 1/2

Barnet Medium

Barnet Ortho Medium

Cramer Anchor

Hammer Fast

Seed 23

Lumière Panchromatic

#### Class 3

Wellington Landscape

#### Class 4

Stanley Commercial

Ilford Chromatic

Ilford Empress

#### Class 5

Cramer Commercial

Hammer Slow

Hammer Slow Ortho

Wellington Ortho Process

#### Class 8

Cramer Slow Iso

Cramer Slow Iso Non-Halation

Ilford Ordinary

#### Class 12

Cramer Contrast

Ilford Half-Tone

Seed Process

#### Class 100

Lumière Autochrome

# The Round Robin Guild Exposure-Guide For April

COMPILED BY PHIL M. RILEY

UNDER this caption a brief table of exposures will be given in each issue for the guidance of Guild members during the following month. While the figures are indicative only, they will be found approximately accurate for the assumed conditions they have been applied to. If the exposure-times given are not considered imperative, but as suggestions, possibly to be varied slightly at the discretion of the worker, these tables will prove of great benefit to all who use them.

**The table below gives the exposures required by the different subjects and plates mentioned during the month of April on any fine day between 10 A.M. and 2 P.M., when the sun is shining brightly and the lens is working at f/8, or U. S. No. 4.**

Double the exposure if the sun is obscured but the light is fairly bright, or if f/11, U. S. No. 8, is used; also from 8 to 9 A.M. and 3 to 4 P.M. Treble it when the light is rather dull, and from 7 to 8 A.M. and 4 to 5 P.M. Increase it four times when there are heavy clouds and very dull light, or if f/16, U. S. No. 16, is used. For f/5.6, U. S. No. 2, give half. From 9 to 10 A.M. and 2 to 3 P.M., increase the exposure one-fourth. From 6 to 7 A.M. and 5 to 6 P.M. increase it five times.

SUBJECTS	PLATES (List on Opposite Page)											
	Class $\frac{3}{5}$	Class 1	Class $\frac{1}{3}\frac{1}{5}$	Class $\frac{1}{2}\frac{1}{3}$	Class $\frac{1}{3}$	Class $\frac{1}{2}\frac{1}{5}$	Class 4	Class 5	Class 6	Class 8	Class 12	Class 100
Studies of sky and fleecy clouds.....	1/1200	1/640	1/512	1/400	1/320	1/256	1/160	1/128	1/100	1/80	1/50	1/6
Open views of sea and sky; very distant landscapes; studies of rather heavy clouds.....	1/640	1/320	1/256	1/200	1/160	1/128	1/80	1/64	1/50	1/40	1/25	1/3
Open landscapes without foreground; open beach, harbor and shipping-scenes; yachts under sail; very light-colored objects; studies of dark clouds	1/320	1/160	1/128	1/100	1/80	1/64	1/40	1/32	1/25	1/20	1/12	2/3
Average landscapes with light foreground; river-scenes; figure-studies in the open; light-colored buildings and monuments; wet street-scenes.....	1/160	1/80	1/64	1/50	1/40	1/32	1/20	1/16	1/12	1/10	1/6	1 1/3
Landscapes with medium foreground; landscapes in fog or mist; buildings showing both sunny and shady sides; well-lighted street-scenes; persons, animals and moving-objects at least thirty feet away .....	1/80	1/40	1/32	1/25	1/20	1/16	1/10	1/8	1/6	1/5	1/3	2 2/3
Landscapes with heavy foreground; buildings or trees occupying most of the picture; brook-scenes; with heavy foliage; shipping about the docks; red brick buildings and other dark objects; groups outdoors .....	1/40	1/20	1/16	1/12	1/10	1/8	1/5	1/4	1/3	2/5	3/5	5 1/3
Portraits outdoors in the shade; very dark near objects .....	1/20	1/10	1/8	1/6	1/5	1/4	2/5	1/2	3/5	4/5	1 1/5	11
Badly-lighted river-banks, ravines, glades and under the trees .....	1/10	1/5	1/4	1/3	2/5	1/2	4/5	1	1 1/5	1 3/5	2 2/5	21
Average indoor portraits in well-lighted room, light surroundings, big window and white reflector .....	3/10	3/5	3/4	1	1 1/5	1 1/2	2 2/5	3	3 3/5	4 4/5	7 1/5	64

In order to make the exposures as accurate as possible after the final multiplications, all fractions accompanying whole numbers have been allowed to remain in this table, except when the whole numbers were so large that fractions might be disregarded as negligible. In such cases approximate figures have been given. Shutters will not always give the exact exposure required, but the nearest speed may be used if it is approximately correct. When the nearest speed is too short open the diaphragm a little; when too long, close it a little. Let the exposure be a little too long rather than too short, and the more contrast there is in the subject the more it may be over-timed. Over-exposure, unless excessive, can be controlled in development, but under-exposure will not give a satisfactory negative.

## OUR ILLUSTRATIONS

OUR charming Easter cover-design is by Rudolf Dührkoop. The love of the mother and innocence of the child are in superb contrast, and one could not better typify the purity of Christ.

Arthur Marshall's "Away to the West" possesses the "bigness" of treatment more characteristic of European than English work. It is decidedly unusual and thoroughly pleasing. One can readily see that the faint breeze moves the heavy craft but slowly. Breadth of treatment, strong lines and good spacing have done much to improve an already attractive subject. No data.

Separation of planes, the importance of which has been ably set forth in this issue by Walter Zimmerman, is seen in "The Parkway in October," by Phil M. Riley, and "The Harvest," by Wilfred A. French. In both the effect has been secured by placing prominent objects in the foreground on which the sharpest focus is located, so that definition as well as perspective does its share. A slight mist has also been of assistance. "The Parkway in October." Data: 3A Kodak,  $3\frac{1}{4} \times 5\frac{1}{2}$ , B. & L., rapid rectilinear lens,  $\frac{1}{2}$ -inch focus, f/8; October, 9:30 A.M.; sun through mist;  $\frac{1}{2}$  second exposure; Kodak film; pyro-metol tank development; enlargement on Eastman Velvet Bromide.

"The Harvest." Data: Voigtländer & Sohn's Extra Rapid Euryoscope, No. 2, Series 4, focus 10 inches, stop f/11; exposure,  $\frac{1}{2}$  second; weather cloudy; Cramer Banner plate; pyro developer; W. & C. Platinotype print.

Another example of differentiation of planes is "Golling at St. Moritz," by Walter Zimmerman. Here the relative sizes of the figures are in a measure responsible for the effect, while the distant mountains and downhill perspective, emphasized by the prominent line of sight, are also important elements. The scene is a charming one, well composed and broad in treatment. No data are available.

Both of Mr. Wilfred H. Schoff's pictures are referred to in his article, particularly with respect to the camera used. "The Hudson-Fulton Parade" depicts a news-event of great interest to the whole country at the time it occurred. The print is used here in contrast to "Smoky Afternoon, New York Harbor," to illustrate the possibilities of a small camera. The former shows pure technical, record-of-fact work, while the latter is wholly along pictorial lines. Data: both subjects were made with a No. 0 Kodak, modified as described in Mr. Schoff's article; Kodak film  $1\frac{1}{2} \times 2\frac{1}{2}$ ; Beck Isostigmat lens, Series 1,  $\frac{1}{2}$ -inch focus, f/4.5;  $\frac{1}{100}$  second exposure; metol-hydro developer; enlargement on Eastman Enamored Bromide. The parade was made in September, poor light, about 2 P.M.; the harbor-scene, in July, dim and smoky, at 4:30 P.M.

"Gypsies," by H. Berssenbrugge, is one of the most interesting character-studies in the American Salon this year. Although a straight photograph, strongly lighted by a bright sun overhead, the result is pleasing as showing these people in the open, where we are in the habit of seeing them. In any other surroundings they would seem out of place. The line above the boy's head is unfortunate and could be spotted out on the negative. No data are available.

In "James Street, Lincoln, England," Bertram Cox gives us an excellent example of spacing and arrangement of masses. Particularly interesting is the effect of the light tower against the darker sky. Data: 4 x 5 Sanderson camera; Aldis Anastigmatic lens, Series II,  $7\frac{1}{4}$ -inch focus, f/8;  $3\frac{1}{2}$ -times light-filter; June, 7:30 P.M., setting sun giving almost horizontal lighting;  $\frac{1}{2}$  seconds' exposure; Wratten and Wainwright Panchromatic Backed plate; Rodinal developer 1 in 30; Griffin's Chamois Lingrain print, warm toned to give the glowing effect of sunlight on stone.

"At the Open Door" is worthy to accompany the many fine things by E. T. Holding. The figure dominates the scene in spite of several distracting centers of interest, and the effect of sunlight contrasted with shadow throughout the picture is especially delightful. Undoubtedly, the interior appears too dim; but a compromise was necessary somewhere and the result causes the sunlight to seem all the brighter. Data: 10 x 12 Freed camera; Ross lens, f/5.6; August, 11 A.M.; sunlight; 3 seconds' exposure; Ilford Special Rapid plate; pyro-soda developer; platinum print from an untouched negative.

Among the few recent works of its kind which is thoroughly pleasing may be mentioned "Nude Study," by Mrs. Jeanne E. Bennett. In no sense does it offend, there being not the slightest evidence of self-consciousness or personality of the model. One can consider it simply for its grace of line and beauty of modeling. Data: Voigtländer & Sohn's 8 x 10 camera and Euryscope lenses, used wide open; May, 5 P.M.; pyro developer; W. & C. Platinotype print.

"The Rest Is Silence," by Alexander Keighley, is an impressive interpretation of a very solemn subject. The downhill perspective plays an important part in the idea conveyed, as do the cypresses, which one always associates with things funereal; but all this is counteracted in part by the brightness of the clouds and distant landscape, symbols of hope beyond the silence. Data are withheld by the maker.

F. J. Mortimer, who holds an unrivaled position as a photographer of marine-subjects, presents something out of the ordinary in "Away Aloft." While at first glance it may seem a mere snap-shot, it is really much more in treatment and in significance. Bromide as a printing-

medium has, we believe, been effective in this case to give just the right value to clouds and sea. No data are available.

The soft, though cleanly-cut pictures of E. M. Astle are already familiar to our readers, but most of the subjects shown have been of a nearer, more intimate nature and have depended to a certain extent upon atmospheric effect. "The Lone Cedar" presents a more open scene, with its chief interest in the foreground but a strong complement in the background. The stunted tree is well placed and the distant shore-line attractive. No better background than the sea could be found to assist in conveying the idea of loneliness. Data: July, 3 p.m.; sunny; B. & L. Zeiss lens, f/11;  $\frac{1}{2}$  second; Seed Non-Halation Ortho plate; metol-hydro developer; W. & C. Platinotype print.

No less beautiful than his other many superb light-effects is "Sunset," by Leonard Misonne, one of the greatest and most talented of European pictorialists. The subject is one to which no half-tone can give adequate expression, but the original is painteresque in the extreme and a fine bit of impressionism, worthy of a prominent place in any collection, whether paintings or photographs. Data: 9 x 12 cm. Zeiss Palmos camera; Unar lens, 15 cm. focus; instantaneous exposure; November, 3 p.m.; film; gum-print.

"The Toy-Cupboard," by Hermann Ziesemer, is a spontaneous little home-scene with strong human appeal. An unfortunate feature is the rectangular spot of light in the background, and it would improve the composition to lower the tone of the prominent toy at the left. No data.

### The Monthly Competition

SELF-PORTRAITS are unquestionably difficult to make and, while the number of entries in the competition was fair, the results were, for the most part, mediocre. Two prints stood out conspicuously, each about equally good, but representing radically different schools of photographic work. No other prints could justly be considered in the prize class, and so it was deemed best by the judges to divide the total amount of the prize money, \$17.50, equally between Paul Lewis Anderson and J. Will Palmer. This decision was gladly accepted by both gentlemen and we think it fair to all concerned. Unfortunately, Mr. Anderson's print is one which defies reproduction. Our engraver has made several honest but unsuccessful attempts, and in response to our request for another print Mr. Anderson writes: "The original was a gum-platinum having, I think, three printings, each gum-coating being manipulated in developing, so that a straight platinum from the negative would fail utterly to reproduce the interesting qualities of the print you have."

Mr. Palmer's print is a superb likeness of this genial camera-enthusiast and an example of good portrait-work besides. Happy in pose, plastic in quality, it is a print of which he may rightly feel proud. Data: 8 x 10 Seneca portrait-camera; Chapman lens, 14-inch focus, wide

open; February, 2.30 P.M.; sunny south window, lower half stopped and balance screened with cheese-cloth; 10 seconds' exposure; Standard Imperial plate; edinol-hydro developer; kallitype print on Strathmore paper. Mr. Palmer writes that when the light is strong he often uses two or more thicknesses of cheese-cloth to screen the light. Focusing was done on a piece of paper pinned to a chair at the right position; the long rubber tube was then pulled taut and a mark made on it where the paper came. Taking a position in the chair, which was moved back so that the mark on the tube was in the same plane with the eye, the exposure was made by pressing the bulb with the left hand.

### The Quarterly Competition

THE besetting sin in most of the prints submitted was the inclusion of too many extraneous objects which were confusing and detracted from the principal theme. Good motives there were in plenty; and could there have been a more drastic omission of unessential objects, and a narrower angle of view generally, the number of honorable mention prints would have been much greater.

The first-prize print, "Half way up the stairs she stands," by Charles H. Flood, is exceptionally successful and spontaneous. Assuming that the balustrade is much too prominent, there is still sufficient interest in the child herself and the effect of light to hold one's attention. No self-consciousness is seen in the figure, while the extended hand and shadow on the wall add much to the attractiveness of the whole. Data: January, good light; Seed 27 plate; Goerz Dagor lens at full opening;  $\frac{1}{2}$  second exposure; pyro developer; W. & C. Sepia Platinotype print.

J. W. Pons, in "A Mental Problem," has given us a second-prize print which is excellent in its naturalness and happy in the little model. The vertical lines of the chair-back are false notes in an otherwise good composition, yet they explain themselves so readily that they are not very obtrusive. Data: January, 2 P.M.; good light; B. & L. rectilinear lens, f/8; 2 seconds' exposure; pyro developer; enlargement on Eastman Standard bromide. Mr. Pons is an amateur photographer in the truest sense of the word, doing all his own work, even to the compounding of solutions, and in the actual work he finds the greatest enjoyment of photography. The print for which our prize was awarded is one of the early results of a home-made daylight enlarger.

Third prize was awarded to D. R. Battles for "The Picture-Book," a subject possessing unity and very pleasing sentiment. Data: January, 11.30 A.M.; light from a south window; bright sun on snow outside; 3 $\frac{1}{2}$  x 5 $\frac{1}{2}$  Ortho-nit plate; Ross Goerz Dagor, f/7; 2 seconds' exposure; eikonogen developer; Royal bromide enlargement exposed in a home-made enlarger with illumination from a tungsten lamp and developed with metol-quinol; reproduction from a print on Artura Carbon Black.

# NOTES AND NEWS

Announcements and Reports of Club and Association Meetings, Exhibitions and Conventions  
are solicited for publication

## Boston Camera Club

PLANS are now in progress for the annual exhibition, which will be conducted along original lines. The entire club has been divided into two sections by the Exhibition Committee, and each will meet frequently up to the opening of the exhibition to talk over negatives, processes and to criticize prints and do team work in making prints if that seems advisable. The idea is to improve the general club standard through cooperation and friendly rivalry between the two sections. The exhibition will be opened at the May meeting of the club, when outside judges will decide which section of the club has done the better work. Individual awards will then be made by popular vote of the club.

Several interesting collections of Interchange prints have been enjoyed recently, including those from Washington and Pittsburgh. We of Boston have heard much of the progressiveness of the Middle West, but "Pittsburgh" in hand illuminated letters was certainly "a surprise."

At a recent meeting of the Executive Committee the following committees were appointed for the year:

Rooms: Messrs. Saunderson (chairman), Read, Hildreth, Boyd, Manson.

Entertainment: Messrs. Read (chairman), Weaver, Davis, Washburn, Titus, Corbett, Adams.

Exhibition: Messrs. Hubbard (chairman), Wing, Riley, Fisher, Fowler, Dana, Fraprie, Peabody.

Membership: Messrs. Fowler (chairman), Chandler, Hildreth.

Publicity: Messrs. Hubbard (chairman), Kellogg, Fraprie, Riley.

## Photograms Illustrations

THROUGH the courtesy of the publishers, Messrs. Dawbarn & Ward, of London, we are enabled to present in this issue a number of the most interesting illustrations in "Photograms of the Year 1909," which issue was reviewed in PHOTO-ERA for January. The reproductions in question are by Mortimer, Misonne, Keighley, Holding, Marshall, Cox, Ziesemer and Mrs. Bennett. The next and succeeding issues of PHOTO-ERA will contain equally interesting plates from 1909 "Photograms" by Evans, Sury, Hofmeister, Zenker, Annan, Dürkkoop, Moffat, Whitehead and Rabadan.

## Toledo Camera Club

THE Toledo Camera Club held its annual meeting on February 9, at which time the officers of the past year were re-elected. The general interest of members is excellent.

## New England Photographers Dine

THE Tenth Annual Winter Meeting and Dinner of the Photographers' Association of New England took place at Copley Square Hotel, Boston, January 25. Sixty members and friends were present. The guest and chief speaker of the evening was Professor Griffith, of the Detroit Museum of Fine Arts. He entertained the company with a series of reminiscences and anecdotes, drifting into art and its application to professional photography. Others present were President Oliver, Secretary Hastings, Treasurer Holman and several vice-presidents and past officers of the Association. The dinner was one of the best ever served. Everybody had a good time and was convinced that the next New England convention, at Boston, July 26, 27 and 28, will be an unusually successful event, as it is bound to be under the leadership of President Oliver, who has pledged himself to make it at least one of the most memorable conventions ever held.

## President Proctor on the National Convention

*To the Members of the P. A. of A.:*

To follow in the footsteps of the men who have held the office of president of the Photographers' Association of America, and who have without exception upheld the honor of American photography and the prestige of this Association, is no light task for any man, however competent he may be. So, in assuming the duties and prerogatives of your presiding officer, I feel that I have undertaken a work that will require my every effort and the most serious endeavor to bring it to a successful conclusion; at least as far as *my* term is concerned. I know that the members of the Association, having honored me with their confidence in electing me to the chair, will also honor me by lending their aid in advancing the interests of the Association, and more particularly in helping to bring the 1910 Convention to a successful issue.

As matters are at present, the work of your officers for the year is largely devoted to planning and conducting the annual convention. This by vote of the members will be held at Milwaukee; and at the recent meeting of the Executive Board plans were made which it is hoped will assure not only a large attendance at the meeting in July, but also a most interesting and instructive session, which shall combine all those features which have made the conventions of the National Association so popular. It is a little early to particularize, but I may say now that, the School of Photography having found such favor, we

have decided to continue this feature, and, with the knowledge gained in the past, to plan it along even better and more valuable lines. I have received assurances of assistance from the very pick of our profession, giving a guaranty that the school programs will be conducted with serious purpose and with the one idea to make it of value in the broadest way to the largest number.

Our Convention Hall is the finest meeting-place in the country, and gives us ample room without crowding for the various purposes called for. The Exhibition Hall in particular is a well-proportioned room that will permit of hanging all the pictures entered in a manner that will remove all criticism.

I am especially proud of the fact that during my term of office the women photographers of the country will meet as a body, distinct and yet a part of the Association. They will have their own exhibition — in the Exhibition Hall — and they have arranged to have the leading woman photographer of the country present to criticize their pictures. As these criticisms will be given in open meeting, it is, of course, the privilege of all members to share in the instruction that such criticism is bound to impart.

The Second Congress of Photography will meet during the convention, and I am assured that most of the State societies will be represented. Here is the opportunity to bring before the photographers of the country such suggestions for the general welfare as may be thought advisable. The Congress is in its infancy as yet, but I see much for it to do in the near future, and it should have the earnest consideration of all who are interested in improving the status and standard of professional portraiture.

The manufacturers will be well taken care of. The halls at their disposal are large and well lighted, and as we are going into territory this year that has not had a national meeting in several years, there will undoubtedly be a full representation of manufacturers and others interested in the commercial side of the business.

Of the entertainments to be offered to the members it is too early to speak. They will be abundant and varied. The local Milwaukee photographers are looking after that end, and with the proverbial Milwaukee hospitality there need be no fear that anything will be lacking for the amusement of all.

Several of the States near-by to Milwaukee have abandoned their conventions this year in order to join with us and make our 1910 Convention the more successful.

I feel that the officers of these State organizations are doing me a special favor in thus forwarding our interests, and they have my warmest thanks.

After all, I am but in the position of a general with an army back of him. I may direct and plan, with the assistance of my brother officials, but unless I have the good-will and earnest support of the rank and file — in this case the members of the Association — I can accomplish but

little. It is to urge this good-will and support that I am addressing you early in the year. Weeks and months pass quickly, and unless we prepare well in advance and make up our minds that we are going to stand by each other, and by our Association, we shall find July upon us and ourselves unprepared for the event. Therefore let me call upon you now to determine to be in Milwaukee when the roll is called; let me call upon you now to prepare your exhibit, bearing in mind always that it is quality only that can count among your fellows, and that if each of you does your best the 1910 Convention will show such a set of pictures as will be hard again to equal; and let me call upon you to urge your neighbor to become a member of the Association, for you can do yourself the greatest good by getting all to work in harmony and for the general welfare.

If, when the Convention is over, we have progressed one tiny step in the creation of the universal photographic brotherhood which is, after all, the aim of this Association, I shall feel that my work has not been in vain.

Fraternally and cordially,

A. T. PROCTOR,  
President, P. A. of A.

## BOOK-REVIEWS

*Books reviewed in this magazine, or any others our readers may desire, will be furnished by us at the lowest market-prices.*

PENROSE'S PROCESS YEAR-BOOK (Penrose's Pictorial Annual, 1909-10). Edited by William Gamble. Fully illustrated. Price, cloth, \$2.50. A. W. Penrose & Company, Ltd., 109 Farringdon Road, London. Tennant & Ward, 12, East 25th St., American Agents, New York.

This superb standard publication appears for the fifteenth time — sumptuous, comprehensive and valuable. It is filled with descriptions in detail of improved standard printing-methods and new processes in color and monochrome from the pen of distinguished authorities, and is embellished with about 250 superbly-printed illustrations of high artistic and technical merit by leading firms of Europe and America. The volume is indispensable to the process-worker, photo-engraver, illustrator and photographer. Some of the color-prints are extraordinary in their fidelity to the originals. The success with which Autochromes may be reproduced on paper is also brilliantly exemplified. All high-class photo-mechanical processes rely for their success upon technically excellent photographic originals, as demonstrated in this work. The book appeals obviously to every photographic specialist who is called upon to supply the process-worker with suitable material. We strongly recommend this work to every one interested in the graphic arts, including the cultivated amateur worker.

## Cash for Good Negatives

THE C. P. Goerz American Optical Company, 79 East 130th St., New York City, is in the market for excellent negatives of which the subjects are striking, attractive and produced with any of the popular types of lenses of the company's make. The price to be paid will be as high as is warranted by the character of the negative. Communicate with the above-named firm.

## The College Camera Club

THIS organization has now become an important feature of the regular course of study at the Illinois College of Photography. Its object is purely to improve the quality of the students' photographic work, and to that end a regular monthly contest is conducted, each student in the Printing-Department being required to enter three mounted prints. The entire work must be done at the clubrooms, which consist of two floors, one provided with a single-slat light and the other fitted with an Aristo lamp. There are, also, reading and music-rooms adjoining. The judges for each contest are selected by secret ballot from the Faculty of the college. Professor Felix Raymer was selected to judge the contest for January. In connection with these contests the club serves a light lunch for all. Three prizes are awarded, each month, as follows: first prize, gold medal; second prize, silver medal; third prize, a merit certificate. The first-prize print is retained by the club, to be framed and placed on the clubroom walls.

## Kodak Advertising-Contest for 1910

So great was the success of the 1909 Kodak Advertising-Contest that another along similar lines has been announced for 1910. The prizes are generous because the best pictures obtainable are desired—pictures which suggest the pleasure, simplicity and convenience of the Kodak system of photography, and do it so convincingly that they give life and reality to advertisements. In this contest \$2,000.00 is paid for ten pictures; but there are rewards waiting for many others who do good work, as twice as many more prints are bought every year. Nor is the Eastman Kodak Company the only concern which uses similar material. Thousands of advertisers the country over are after illustrations for their magazine work, catalogs and booklets. They want live, virile stuff, and the man who makes it can get his own price.

There's a big field for the man with ideas, in advertising-illustration, and there's no better way in which to get a start than to enter the Kodak Advertising-Contest for 1910.

### TERMS

1. Each picture is to contain a figure or figures, and is to be suitable for use as an illustration in advertising the Kodak or the Kodak system of amateur photography.

2. Each print in Class A must be from a negative  $5 \times 7$  or larger. Each print in Class B must be from a negative  $4 \times 5$  or  $3\frac{1}{2} \times 5\frac{1}{2}$  or larger.

3. Prints only are to be sent for competition—not negatives.

4. Prints must be mounted but not framed. (Mounts should show about one-inch margin.)

5. No competitor will be awarded more than one prize. (This does not prevent a competitor from entering as many pictures as he may desire.)

6. Due and reasonable care will be taken of all non-winning prints and, barring loss or accident, they will be returned to their owners at our expense; but we assume no responsibility of loss or damage.

7. The negatives from which all prize-winning prints are made are to become the property of the Eastman Kodak Company, and are to be received by it in good order before payment of prize-money is made.

8. Contestants who are awarded prizes must also furnish to us the written consent of the subject (in the case of a minor, the written consent of a parent or guardian) to the use of the picture in such manner as we may see fit in our advertising, as per the following form:

*For value received, I hereby consent that the pictures taken of me by \_\_\_\_\_, proofs of which are hereto attached, or any reproduction of the same, may be used by the Eastman Kodak Company or any of its associate companies for the purpose of illustration, advertising or publication in any manner.*

*I hereby affirm that I am the parent of \_\_\_\_\_, and for value received, I hereby consent that the pictures taken of him/her by \_\_\_\_\_, proofs of which are hereto attached, or any reproduction of the same, may be used by the Eastman Kodak Company or any of its associate companies for the purpose of illustration, advertising or publication in any manner.*

NOTE.—Blank forms will be furnished on application.

9. All entries should be addressed to EASTMAN KODAK CO., Advertising Department, Rochester, N. Y.

10. In sending pictures, mark the package plainly, "Kodak Advertising-Contest;" and in the lower left-hand corner write your own name and address. Then write us a letter as follows:

*I am sending you to-day by Mail, charges prepaid, \_\_\_\_\_ prints. Please enter in your Kodak Advertising-Contest. Class \_\_\_\_\_*

*Yours truly,*

*Name, \_\_\_\_\_*

*Address, \_\_\_\_\_*

11. The name and address of the competitor must be legibly written on a paper and enclosed in a sealed envelope in the same package in which the prints are forwarded. There is to be no writing on prints or mounts.

12. We will promptly acknowledge the receipt of pictures, and, when awards are made, will send each competitor a list of prize-winners.

13. Only recognized professional photographers conducting a studio will be allowed to compete in Class A. Class B is open to all photographers not in above classification.

14. This contest will close Oct. 1, 1910. The prizes:

**CLASS A — PROFESSIONAL PHOTOGRAPHERS ONLY**

Negatives 5 x 7 or larger

First Prize .....	\$500.00
Second " .....	400.00
Third " .....	250.00
Fourth " .....	150.00
Fifth " .....	100.00

\$1,400.00

**CLASS B — AMATEURS ONLY**

Negatives 4 x 5 or 3½ x 5½ or larger

First Prize .....	\$300.00
Second " .....	150.00
Third " .....	75.00
Fourth " .....	50.00
Fifth " .....	25.00

\$600.00

**SUGGESTIONS**

First of all, it should be remembered that these prizes are not offered for the sake of obtaining sample prints or negatives made with our goods. Merely pretty pictures, merely artistic pictures, will not be considered. The pictures must in some way connect up with the Kodak idea — must show the pleasure that is to be derived from picture-taking, or the simplicity of the Kodak system, or suggest the excellence of Kodak goods; — must, in short, help to sell Kodak goods, by *illustration* of some one of the many points in their favor.

The jury will be instructed to award the prizes to those contestants whose pictures, all things considered, are best adapted to use in Kodak (or Brownie Camera) advertising.

As reproductions of the pictures will often be in small sizes, too much detail should not be introduced.

Pictures for reproduction should be snappy — vigorous; for they lose much by the half-tone process.

Where apparatus is introduced, it must be up-to-date. If you have n't the goods, you can borrow.

It is highly probable that we shall want to secure some negatives aside from the prize-winners. In such cases special arrangements will be made.

If you are interested send for a copy of the Souvenir of 1909 contest, which gives an idea of the kinds of pictures that we consider valuable from an advertising-standpoint.

**THE JUDGES**

The Jury of Award will consist of photographers and of advertising-men who are fully competent to pass upon the work submitted. Full attention will be paid, therefore, to the artistic and technical merit of the work, as well as to its strength from an advertising-standpoint. Announcement of the names of the judges will be made later.

**Camera Club of New York**

AN interchange set of lantern-slides was exhibited March 4, at 8.30 o'clock, at the rooms of the club. March 11, Mr. Harold M. Bennett delivered a highly entertaining lecture, illustrated by lantern-slides in color, entitled "A Little Journey Through Japan." March 12, at 7 o'clock, occurred the ninth annual dinner of the club at Hotel Brevoort, 7 Fifth Ave. Members and friends were present in considerable number and a very pleasant evening was passed.

**LONDON LETTER**

By E. O. HOPPÉ, F.R.P.S.

WE are just now in the "haute saison" of the photographic exhibitions in England. Much talk has been heard lately as to the advisability to break away from the old-fashioned arrangement of having a number of separate classes, such as portraiture, landscape, architectural subjects, still-life, flower-studies, etc. It was found that this scheme, which has been in use for many years, was very apt to encourage those members of our photographic community which we gracefully describe as "pot-hunters." Of course, our big London shows, such as the Royal and the Salon, and also a few of the leading provincial exhibitions, have had one big pictorial class for a long time. A similar plan has now been adopted by various other exhibitions. The Hackney people, for instance, arranged one class which was confined to members who have not received more than five awards. Another class was for those who have never received an award; and there was an open members' class, in which it was assumed all the exhibitors had received more than five awards. This division is distinctly good, and encouraging to the beginner. An innovation, also, was made by Birmingham this year, which proved to be extremely interesting. I do not know whether a similar plan is not already followed in America; if not, I would earnestly recommend organizers of exhibitions in the States to adopt arrangements on the following lines. Besides the ordinary classes for (1) framed pictures of any pictorial subject, (2) lantern-slides, (3) colored photography by any process, there was a scientific section which included some excellent subjects of natural history, geology, radiography, telephotography, and other scientific subjects, such as lightning, electric sparks, and photographs dealing with the detection of crime. The extremely important factor which photography plays in all branches of public life, in industry, commerce and modern education, was well demonstrated in the classes set apart for applied photography. There were photographs illustrating camp-life, naval or military manœuvres, suitable for recruiting-purposes; others illustrating life in factories and workshops (dairy, brewery, electric-light stations, tram depots, fire-stations, gas-works,

railways, etc.); photographs illustrating the various processes a manufactured article passes through; photographs illustrating life in the streets; photographs of various kinds of sport and travel, and photographs suitable for advertising.

Among the six Honorary Members elected by the "Freie Photographische Vereinigung in Berlin" on the occasion of its twentieth anniversary are two Englishmen, Sir W. de W. Abney and J. Craig Annan — two men whose names have by now become household words in the photographic world and who have contributed very considerably to the advancement of photography as a handmaid to science and art.

As was already announced in PHOTO-ERA, the Linked Ring has decided not to hold a Salon in England in 1910. In all probability, however, there will be a London Salon, organized by the members of the Salon Club. To the seven members of the Linked Ring, whose names were published as the organizers, the following must be added as the founders of the Salon Club: Mr. and Mrs. Cadby, E. O. Hoppé, Arthur Marshall and Ward Muir. The new movement has the active sympathy of the foremost pictorial workers all over the world, and its effort will be to hold the most catholic and comprehensive exhibition of purely pictorial photography ever originated.

One of the most beautiful printing-processes is, without doubt, photogravure. Though not very difficult to work, it will hardly ever be popular with the average camera-user, on account of the fairly heavy expenses of the initial outlay which it necessitates. There is a method, however, which in its results closely resembles prints obtained by the above-mentioned process. Every one of my readers is, probably, well acquainted with the excellent methods of obtaining warm brown tones on bromide and gas-light papers by means of the hypo-alum bath, the sulphide bath and the still more reliable thiomolybdate toning-bath, suggested by Mr. H. E. Smith. This toner is capable of giving a great variety of tones, according to the deposit in the original print. Both uranium and copper ferricyanide have been suggested, and are quite reliable in their production of red tones. It is, however, in the production of tones which are neither a decided brown nor red, but which may be described as warm black or brown black, comparable to that seen in the best photogravure, that the following formula and method of treatment are suggested by Mr. Mortimer, who has made a series of experiments in this direction. The following solutions are made up:

.I

Boiling water .....	1 pint
Sulphate of copper .....	120 grains
Neutral citrate of potash .....	1 ounce

B

Boiling water .....	1 pint
Ferricyanide of potash .....	100 grains
Neutral citrate of potash .....	1 ounce

For use, take equal parts of A and B and dilute with four times the quantity of water. It should be noted, in using this bath, that the image is not intensified in any way, as occurs with many of the brown-toning baths, and also that the very best effects are obtained by using one of the "Cream Crayon" or toned bromide or gaslight papers now on the market. A thin variety, with a smooth surface, will give the best effect. The toning may be commenced immediately after the print comes from the final washing-water; but if it is allowed to dry, it should be well soaked again before proceeding with the toning. The immersion in the toning-bath should not be continued too long, or the print will begin to take on a pinkish tinge and continue until the image is quite red, as in ordinary copper-toning. With a good, strongly-developed bromide print an immersion of about a couple of minutes will generally be ample to impart the desired tinge of warmth to the black deposit. It is very important that the toning-action is not continued too far.

Prints toned in this manner, when completed, should be treated to a bath of Zapon (celluloid varnish) to give luster to the shadows. If the prints are made with broad margins, and a plate-mark is added, the photogravure effect is very notable and highly artistic.

## The American Federation of Photographic Societies

*An organization for the advancement of pictorial photography, encouragement of pictorial workers, and the development of new talent.*

### OFFICIAL ORGAN: PHOTO-ERA

*President:* GEORGE W. STEVENS, Toledo Museum of Art, Toledo, O.

*Vice-President:* JOHN F. JONES, 934 Ash St., Toledo, O.

*Secretary:* C. C. TAYLOR, 3236 Cambridge Ave., Toledo, O.

*Treasurer:* GEORGE W. BEATTY, 1629 Nicholas Bldg., Toledo, O.

*Historian:* WM. A. RHEINHEIMER, 1222 Clara Ave., St. Louis, Mo.

PRESIDENT STEVENS has issued a call for a meeting of the Executive Board of the American Federation of Photographic Societies, to be held in the office of the Toledo Museum of Art, Toledo, O., on Saturday, May 7, 1910, at 2:30 P.M. This will be a very important meeting of the Federation and much very important business will require careful attention.

Each club in the Federation is entitled to three representatives, who should be duly elected and qualified at a regular club meeting, and their names should be sent to the secretary at the earliest moment.

In the cities where the Sixth Salon has been hung the newspapers and the public have certainly been unstinting in their praise as well as in their attendance, which, so far, has been greater than for any preceding Salon.

# WITH THE TRADE

## Excellent Dry-Plates

DURING the past few months it has been the pleasure of our Mr. Riley to make a considerable number of snow-landscapes and indoor portraits on Ilford plates of different emulsions, including the Monarch, Zenith, Special Rapid and Rapid Chromatic. In every instance, both with tank and tentative development, the results were superb, the negatives obtained being characterized by brilliancy, fineness of grain and a long scale of gradation with plenty of latitude in exposure and development. Amateur or professional will be amply justified to place every confidence in Ilford plates, obtainable in the United States of Hastings and Miller, 118 Nassau St., New York City.

## The Studio Dressing-room

WHILE nearly every high-class studio is provided with comfortable and well-appointed dressing-rooms for the use of sitters, there is a certain feature which the proprietor frequently overlooks. We refer to the apparently small detail of toilet-soap.

It has come to our notice that in many studios a very inferior article is placed at the disposal of a refined patronage. A careful person will refrain from touching a piece of soap which is sticky, soft and ill-smelling. The proprietor should see to it that the very best soap procurable, as well as a high-class face-powder, is a constant feature of his dressing-rooms; for a society lady or refined actress, accustomed as she is to the best of everything, should be offered nothing of inferior quality.

It is hoped that this will meet the eye of the sagacious photographer, who tries to make his patrons as comfortable as possible, not forgetting to provide the little luxuries to which they are accustomed in their own homes.

## Retired Goods

THE Eastman Kodak Company announces the retirement from the market of the following brands of papers: *Kloro*, *Albuna* and *W. D. Platinum*, other goods of Eastman manufacture having taken their place.

## Post-Cards of Local Interest

THE coming summer will be the best season post-cards ever had, so get in early with your new cards. No racks are complete without local views. If you are in doubt where to place your order for view-cards, write the National Color-type Company of Cincinnati, O., for its samples.

It is the first maker of the hand-colored cards in America, old enough to know good cards, and young enough skilfully to prepare them.

## Motion-Picture Film

An idea of the extent of the new, vast industry of making motion-picture film may be gained from the fact that three of the most prominent Eastern producers consume one hundred pounds of Agfa Metol and two hundred pounds of Agfa Hydroquinone per month. Six of the firms next in size consume fifty pounds of Agfa Metol and one hundred and fifty pounds of Agfa Hydroquinone per month. This is, also, an indication of the popularity of these excellent Agfa products for developing motion-picture film.

## A New York Home for Ansco

A POPULAR product in a populous city requires adequate room in which to carry the necessary stock to meet demands promptly and to conduct business with the greatest possible efficiency. Having in mind the interest of the many Ansco dealers who rely on the New York branch, the Ansco Company has provided a new building at No. 129-131 West Twenty-second St., a few doors from Sixth Ave., and in one of the busiest and most interesting sections of New York City. Customers are invited to look over the extensive and comprehensive line of photographic staples always in stock. The necessary convenience will also be afforded them to get an intimate knowledge of the quality and possibilities of Ansco products. Printing-rooms, where competent demonstrators will assist in thoroughly familiarizing one with Cyko paper, are provided, and it will be the photographers' and the dealers' home whenever they wish to take advantage of its splendid central location and the opportunities for information which are extended.

## Voigtländer & Sohn at Chicago

We are authorized to announce that the Voigtländer & Sohn Optical Works have established a new branch office at 617-631 West Jackson Blvd., Chicago, Ill., where will be carried a complete line of the firm's photographic lenses, cameras, binoculars, telescopes, microscopes, etc., and where all kinds of fitting and repairs will be promptly attended to.

This new establishment will, like the firm's New York house, be controlled by the home office at Braunschweig (Brunswick), Germany, and conducted in the prompt and business-like manner which is so well known among the trade. The Chicago office will enable the firm to fill orders from the Central and Western States, including Ohio, in a shorter time than heretofore. All Central and Western patrons are requested to communicate with the Chicago house.

The New York office will undergo no change, except that its Accounting-Department will be transferred to Chicago, and for this reason all

remittances and matters pertaining thereto should be sent to the Chicago address. The New York office will remain at 225 Fifth Ave., where business will be transacted as heretofore, and customers in territories east of Ohio are requested to send their orders to New York City.

#### A Good Method of Double Printing

PROBABLY the simplest and easiest method of double printing is that given in the booklet which is offered free to our readers by the Kilborn Photo-Paper Co., whose advertisement appears in this issue. This booklet also contains instruction for the manipulation of developers, along with other valuable information. If you have not received a copy our advice is — send for one.

#### A Well-Known Manager

It is a pleasure to announce that Mr. J. D. Johnson, of San Francisco, has assumed the management of the Quaker Drug Company, of Seattle, Wash. Being known, as he is, throughout the country, and bringing to the conduct of affairs the fruits of years of experience, a bright future is anticipated. The aim of the company is to merit the confidence and esteem of all to whom its name may be known. The line of photographic supplies will continue to be as complete as ever.

#### Cooke Extension-Lenses

WE are asked by The Taylor-Hobson Company to announce that its Series II Cooke anastigmats may now be obtained to order with extension-lenses somewhat like those furnished for the other series. By removing the front glass and substituting another, the entire focal length is increased; thus, from the same point of view, the photographer obtains larger images of distant objects. These extension-lenses increase the size of image about fifty per cent; for example: an object taken with the normal lens, and two inches long in the photograph, is from the same position, made three inches long with the extension-lens. It is claimed that better results are thus obtained than with the separate portions of other makes, practically two complete anastigmats being available. Present users should note that their Series II lenses may be fitted with these new extensions, but the register-

number of the lens should be given with the order. Extension-lenses for Cooke anastigmats, other than the Series II, have long been used, the back glass having hitherto been the one replaced. The Series II are the only lenses which permit the change at the front.

#### Nicola Perscheid and Zeiss Lenses

ONE of the best advertisements we have ever seen is the illustrated brochure devoted to the work of Nicola Perscheid, of Berlin, Germany. It is published by the celebrated firm Carl Zeiss, of Jena, Germany, and issued in this country by its United States agent, E. B. Meyrowitz, 104 East 23d St., New York City, to whom applications for copies should be addressed.

The publication, 8 x 10 in size, consists of a biographical sketch of Nicola Perscheid and an analysis of his refined style of portraiture, in the studio and in the open, as well as his methods of operation — in admirably-expressed German. Then follow twenty full-page half-tone reproductions, which exemplify the artistry of this eminent practitioner, the subjects, for the most part, being members of royalty and the aristocracy of Berlin. These portraits demonstrate the success that can be achieved with Jena-made Carl Zeiss lenses, notably the Tessar F/4. 5.

#### Hayden's Film-Tank

THIS moderate-priced piece of apparatus is a boon to the amateur photographer who cannot have a dark-room in which to develop his exposures, and is especially valuable to the tourist because of its compactness. No transfer-box or apron are required; the device is simplicity itself, consists of the fewest possible number of parts and produces excellent negatives in six minutes. A descriptive cut will be found in the advertisement on another page.

#### Velox Post-Cards

Too late for correction in our March issue came a request to change the price of Velox Double Post-Cards from fifteen cents per dozen, as incorrectly stated on the electrotype sent us by the Eastman Kodak Co., to forty-five cents. Incidentally, this is a product which every owner of a panoramic camera will do well to investigate.

## PHOTOGRAPHIC EXHIBITIONS

Information for publication under this heading is solicited

Society or Title	Date	Entries Close	Particulars of
Sixth American Photographic Salon St. Paul, Minn.	Mar. 24 to Apr. 6		C. C. Taylor, Sec'y, 3236 Cambridge Ave., Toledo, O.
Racine, Wis. Toronto Camera Club	Apr. 20-30 Apr. 4-9		Hugh Neilson, Sec'y, 2 Gould St., Toronto, Ont.

# PHOTO-ERA

The American Journal of Photography

Official Organ of the American Federation of Photographic Societies

Vol. XXIV

MAY, 1910

No. 5

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WILFRED A. FRENCH, Ph.D., Editor

Associate Editors, PHIL M. RILEY, ELIZABETH FLINT WADE

Contributions relating to photography in any and all of its branches are solicited and will receive our most careful consideration. While not accepting responsibility for unrequested manuscripts, we will endeavor to return them if not available, provided return-postage is enclosed.

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A PORTRAIT HEAD  
R. DUHRKOOP



# PHOTO-ERA

The American Journal of Photography

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## Observations on the Autochrome Process

J. APPLETON BURNHAM, Jr.

PROBABLY no more fascinating branch of photography has ever been presented to amateur and professional than the Lumière process of producing photographs in their natural colors. I shall not attempt to explain how these wonderful Autochrome plates, as they are called, are prepared; but, for the benefit of those who have balked at using these plates on account of the expense and the difficulty of their manipulation, I will show how all this has been changed.

It is true that Autochromes cost much more than ordinary dry-plates, although since they were first introduced into this country the price has been reduced over fifty per cent. One good Autochrome, nevertheless, will please the average person far more than many transparencies of the ordinary kind. The solutions used in the simplified process are inexpensive and easy to prepare, and, furthermore, the number of operations after exposure has been reduced from eight to three.

The Lumière Autochromes come in boxes of four each, and in several standard sizes. The only other requisite, besides the plate, to enable one to take pictures in their natural colors is a yellow-colored ray-filter, or screen, which is placed either in front of or behind the lens. It must be remembered that the ordinary ray-filter used in orthochromatic work will not answer this purpose, and a special filter furnished by the Lumières must be used. In connection with this filter an amusing

story was told me about a man who bought some of the first Autochromes that came over to this country. He was asked by the dealer if he had a Lumière filter, and was told that it was necessary to have one in order to get the true color-values in his pictures. His answer was that he had an ordinary ray-filter at home and, as it looked about the same color as the one made by Lumière, he thought it was a waste of money to get another. A few days afterwards, however, he changed his mind considerably. He tried several plates and, although I did not see them after they were finished, I imagine that if one of his subjects was a landscape the grass in it might have been bluish, and that if there were any cows or other animals included they were probably of a purplish hue.

To continue: the plate is placed in the holder with the glass side towards the lens, and a piece of black cardboard, which comes with the plates, is placed next to the film as a protection against injury. After focusing and deciding on the diaphragm to be used, the filter is placed in position, and the picture is taken in the same way as with the ordinary plate.

Now enter the only two difficulties in the manipulation of the plate: first, the question of correct exposure, and then care of the film in handling the plate after exposure. Practice will soon enable the novice to get good results, however; and if at first the latter will over-expose rather

than run the risk of under-exposing he will, as a rule, waste fewer plates.

It would be well for the beginner to select something in still-life for his first subject — a vase of brightly-colored flowers, using some neutral color as a background; or let him make a copy of a water-color or an oil-painting. After he has reached the stage where he feels some confidence in handling the plates he can attempt something out-of-doors. The question of exposure indoors is, of course, entirely governed by the quality of the light and the brightness of the subject. In an ordinary room without top-light, but with, say, two or three windows facing south, one can, on a bright day, make exceedingly good color-plates of still-life, and even portraits. At first, however, portraits should not be attempted even in studio-light, or out-of-doors. In the middle of the summer, in a well-lighted room, the exposure on subjects of bright color will vary, using stop F/16, from, say, ten to twenty minutes, according to the time of day and quality of the light. This refers, of course, to pictures taken out of the direct rays of the sun, and these figures are only approximate. In winter the length of exposure must necessarily be increased. For still-life stop F/16 is the one that is more generally used, as it gives enough definition without undue length of exposure. In portraiture, on account of the slowness of the plate, a lens should be used working at F/5.6, or U. S. 2, at least.

As regards the sensitive film, which is of necessity extremely thin and delicate, there are only two things about which the operator must be very careful. First, the fingers must never come in contact with the film, and great care must be taken in loading the plate-holder so as not to cause undue pressure on the plate. Secondly, unless the temperature of the solutions used is about that of the washing-water, the film is very likely to frill, buckle or leave the plate, which, of course, will result in disaster. It is best to keep the solutions and water as near 60° Fahrenheit as possible. I have found that the best way to prevent this frilling is to immerse the plate before development in a solution of

formaldehyde, in the proportions of one ounce to thirty-two ounces of water, for at least two minutes. Although chrome alum is advised in the Autochrome directions, I have not found it nearly so effective to stop frilling as is formaldehyde. After this two-minute immersion the plate should be rinsed in gently-running water for about twenty seconds, and then placed in the developer. By means of the Virida papers, now furnished, a light can be used in the dark-room. These papers are glued on the lamp in place of the ruby glass, and upon them are printed the instructions for developing, which may be read easily through the dark-room light. As the plate can be examined and, therefore, controlled, in the development, very fair results can be obtained from plates that have not received their proper exposure. When the development has proceeded far enough the plate is again washed for about twenty seconds, then placed in the reversing-solution, and immediately brought out into full daylight or artificial light, as the case may be. This reversing-solution should be kept in a dark place, and when it begins to show sediment it should be filtered. The plate is left in this reversing-solution at least four minutes, and the tray should be rocked continuously. Again the plate is washed for about forty seconds and then transferred to the original tray and developer. When the plate has turned uniformly black, which takes about three to five minutes, it is washed for four minutes and dried quickly in a well-ventilated place. If, after the second development, the colors are not found to be as brilliant as in the subject photographed, the plate may easily be intensified by the formula given in the directions.

As I have said before, the film on these plates must be handled with great care, for the least scratch will allow the solutions to leak in between the film and the layer of colored starch-grains beneath it, producing light green marks, which, of course, ruin the looks of the picture. Scratches that come through carelessness after the plate has been dried, or pin-holes, may be retouched with ordinary water-colors and a little gum-arabic water.



IN THE FOREST

J. SURY

Care should be used, however, to select a very finely-pointed brush for this purpose, and to use but very little water, so as to allow the paint to dry immediately. The directions advise varnishing the plate after it has been dried. My experience, however, has been that it is rather difficult to flow on the varnish without leaving ripple-

marks on the plate. These marks or waves are plainly visible in certain lights, and are caused by the varnish running around dust particles or minute abrasions on the film. It is much wiser, I think, merely to protect the finished plate with a cover-glass and bind the two together with passe-partout tape. Occasionally one runs



DIRGE IN WOODS

FREDERICK H. EVANS

A wind sways the pines,  
And below  
Not a breath of wild air;  
Still as the mosses that grow  
On the flooring and over the lines  
Of the roots here and there.  
The pine-tree drops its dead;  
They are quiet, as under the sea,  
Overhead, overhead  
Rushes life in a race,  
As the clouds, the clouds chase;  
As we go,  
And we drop like the fruits of the tree  
Even we  
Even so.

— George Meredith.





DUSTY ROAD

A. RABADAN

across a plate which has one or several round, black spots on it; but since these plates were first introduced these spots have shown up less frequently. There is a method explained in the instructions which is supposed to dissolve these spots, but I have never had any success with it. To my mind it is best either to leave these spots alone, or else go over them with a needle, which allows a little light to pass through and makes them very much less apparent.

As yet the Lumière Autochromes are viewed as transparencies, and positives have not been accomplished on paper. There are, however, frames upon the market which contain a mirror, and Autochromes may be viewed in this mirror, which gives the effect, in a way, of a daguerreotype, only, being in colors, they are far more beautiful. Of course these frames are not necessary, and the plates may be viewed by north daylight, and also by artificial light. Very much the best artificial light we know of at present for this purpose is the Nernst lamp. Autochromes should never be viewed by sunlight, nor should they be hung where the

rays of the sun can reach them. With very little trouble one can make a very satisfactory apparatus for viewing these plates at night. This consists of a four-sided box, either of pasteboard or wood, about two feet long, and larger at one end than at the other. The small end holds the plate and the other end a Nernst lamp, or a Tungsten electric bulb if the former cannot be obtained. The large end of this box should be at least ten inches square for viewing 5 x 7 plates or smaller. The inside of the box should be lined with pure white paper, and about four inches from the large end there should be placed a square piece of "mud" ground-glass. This glass dissolves the image of the lamp, so that the outline of the latter is not visible when viewing the Autochrome.

In conclusion, I may say that the novice must not be at all dismayed by the seemingly complex directions described above. Any one who has had the slightest experience in photography can, with a little care, produce extremely good results with these plates, which, in both interest and beauty, far surpass photographs made by any other process.

## The Photography of Moving Objects

**A**MONG photographers much confusion of thought exists with regard to the exposure required on moving objects, and very exaggerated ideas of shutter-speeds are prevalent, while quite impossible feats are often attempted. It is easy in any particular case to calculate the shutter-speed required to eliminate all sign of movement, and if we take one such case and examine all its conditions carefully it is possible to gather some data that are of general use. The highest speed possible with some of the best lens-shutters now upon the market is about  $1/200$  second, and we will consider first what kind of work can be done with such an exposure—of course, assuming that the lens is sufficiently rapid and the light good enough to render such a short time serviceable.

If no movement is to be apparent on the plate the image must not move more than  $1/200$  inch during the exposure of  $1/200$  second, which means that its rate of movement must not exceed 1 inch per second, or 100 yards per hour. This rate can easily be remembered, and it forms the basis of all other calculations. Assume that we are using a 5-inch lens, then a 6-foot man, at a distance of 25 feet from the lens, will be represented by a figure 1 inch high on the screen, or on a scale of reduction of  $1/60$ , and, if the maximum rate of movement of this figure is not to exceed 100 yards per hour, then the movement of the man himself must not exceed 60 by 100 yards, or  $3\frac{1}{2}$  miles per hour. A distance of 25 feet is about the width of an average roadway, in which not more than three vehicles can pass each other easily; therefore the case we are considering is one of a very practical and ordinary kind, and we may use it as a standard. Suppose we are standing in such a roadway and aiming directly across the road, then with our highest shutter-speed we can secure a perfectly sharp image of a man walking fast on the opposite footpath, and this is the greatest achievement that is possible

in the conditions. If we attempt an exposure on a cyclist passing at ten miles per hour, we meet with failure, for we cannot deal successfully with anything moving in the centre of the road at a greater speed than half  $3\frac{1}{2}$  miles or  $1\frac{3}{4}$  miles per hour.

Next suppose we are in the open country instead of a narrow street, and that our object is not a man, but that favorite subject of the budding photographer—a moving railway-train. Here, again, we can secure a perfectly sharp image of the train, if its rate of movement is not over  $3\frac{1}{2}$  miles per hour and our distance is 25 feet, or equal to the length of a rather short railway-carriage. Three and a half miles can hardly be called an average speed of a train, even in some south-eastern counties, yet the average amateur will expect a passable result at the same distance, if the speed is thirty-five miles per hour, or ten times as great. To deal with this higher speed, we should, however, be ten times as far away, or 250 feet instead of 25 feet, while to cope with the Scotch express at seventy-five miles per hour we must be 500 feet, or 160 yards, or about the length of the train itself, away from it.

If content with a little blur, such as that which is produced by a movement of the image to an extent of  $1/100$  inch, we can halve the distances given or double the rates of movement, while if the direction of the movement is changed from broadside on to a direct approach or recession of the object, then we can divide the distance or multiply the speed by three. If the direction of the movement is at an angle of  $45^\circ$  across the field of view, we can reduce the distance by a quarter or increase the speed of the object by a third, but a more useful case to consider than either of these is when the object is traveling to or from us in a direction crossing the lens-axis at about an angle of  $30^\circ$ . In these conditions we can halve the distance or double the speed. If then we also permit

a blur of  $1/100$  inch, our shutter-speed of  $1/200$  second will enable us to deal with the case of a man running obliquely towards us at a distance of 25 feet and a speed of four times  $3\frac{1}{2}$ , or fourteen miles per hour. It is thus apparent that a good deal may be done with a shutter-speed of  $1/200$  second at such events as sports and races.

We may now consider the case of the focal-plane shutter, which is capable of giving shorter exposures than the average lens-shutter, though it is open to doubt that the extremely high speeds, usually associated with focal-plane shutters, are actually reached. So far as we know, the highest speed ever recorded by a careful test in the case of a lens-shutter is about  $1/350$  second. For the sake of argument, we will allow  $1/400$  second as a possible focal-plane exposure, and see how this affects the cases previously considered. It is obvious that halving the time of exposure permits us either to halve the distance of the object or double its speed. That is to say, we can get within 12 feet of the man running at fourteen miles an hour at an angle of  $30^\circ$ , or we can deal satisfactorily with some more mobile object moving at twenty-eight miles per hour at a distance of 25 feet. If we go back to our first case—that of the man moving across the line of sight—it is evident that he can increase his speed to fourteen miles per hour at a distance of 25 feet, while a vehicle in the centre of the road going at seven miles per hour can also be satisfactorily dealt with. It must not be forgotten that we are allowing a blur of  $1/100$  inch. In these cases, if we want critical definition, the rates must, of course, be halved.

It should now, we think, be sufficiently obvious that photographers generally are apt to over-rate the possibilities of shutter-work on objects moving across the field of view, and to under-rate those which exist when the object is moving at a sharp angle. If only we secure a suitable angle, then the more or less fabulous speeds of less than a one-thousandth part of a second are quite unnecessary. One five-hundredth is prob-

ably as short an exposure as is ever required in ordinary practical conditions, while it is doubtful that more than a very few exceptional shutters will give such an exposure. When rapidly-moving objects are to be dealt with, the experienced worker always selects a point of view from which the object approaches or recedes at a sharp angle, because he knows quite well that a similar speed across the field presents an almost hopeless problem.

It must not be forgotten that, in the case of a man either walking or running, the rate at which he progresses is slower than the rate of movement of certain parts of his body. The feet, when swinging forward, naturally move very rapidly—at something like twice the speed of progression of the body; therefore, if we regulate the shutter-speed simply by the rate of general progress, a certain amount of blur may be visible in some parts of the figure. Whether it is visible or not depends, of course, on the moment of the exposure or the phase of the movement. If several people are in the view, some will be caught just at the moment when their foot-movement is at its highest, others when the feet are both on the ground and practically motionless; therefore some figures will show blur, while others will be perfectly sharp. Quite to eliminate all sign of movement in the cases we have considered, it would be necessary to double either the distance of the object from the camera or the speed of the shutter. As a matter of fact, however, an effect of quite arrested movement is seldom, if ever, desirable. If we take  $1/200$  inch as the permissible amount of blur for the more important part of the subject, the more rapidly-moving minor parts will be blurred only to about  $1/100$  inch, which is negligible for all practical purposes.

There is just one more point in regard to exposure on moving objects that is often overlooked. Wonderful things have been done with reflex cameras, and the shutter is often credited for results that are really due to another factor altogether.



CYPRESSENHAIN

TH. HOFMEISTER

If the moving object is in sharp focus its definition is not affected by the size of the aperture, but if slightly out of focus it is very materially affected, for not only is there blur due to lack of depth, but there is an actual increase

of movement. Very great care is required to secure perfect focus on a moderately near object with a large-aperture lens, and it is difficult excepting with the reflex type of instrument.—*British Journal of Photography*.

# Spring Flower-Photography

Rev. F. C. LAMBERT, F. R. P. S.

**I**F I may judge not only by my own experience, but also by that of many other lovers of flower-photography, one of our chief difficulties lies in hitting-off exactly the right degree of light and shade for the background.

Many photographers take up flower-work for the first time in the spring season so that the present moment seems especially appropriate for considering the subject. Probably our eyes, after the long winter rest amid sombre grays, browns and other quiet tints, are all the more ready to enjoy the beautiful yellows, whites and other lighter colors which year after year characterize spring flowers and foliage.

If, however, our white flowers are to look white, special care will be required not only in the lighting of the subject but also in the choice of the background. Quite nine out of ten beginners jump to the conclusion that in order to make the flowers look white all they require is a very dark background; and the use of black velvet is by no means uncommon. But in most instances the results are quite unsatisfactory. Such a plan gives violent light-and-shade contrasts, but the whiteness, transparency or, rather, I should say, the peculiar translucency of white petals is lost and we get something which suggests a flower-like form, but seems made of white enameled iron. All the fragile delicacy is missed. The thing looks hard, frozen, dead and quite irresponsible to a puff of wind.

In flower-portraiture it is hardly possible to over-estimate the importance of the background, and to arrive at the most suitable colors the following method will be found useful:

Procure a sheet of strawboard about  $20 \times 30$  inches, and from six to eight sheets of draying or crayon-paper in white, cream, pale French gray, medium gray, dark iron-gray, other neutral tints and real black. Take 3-inch wide strips

of each of the papers, and, with a touch of gum or paste, fix them to the strawboard, thus forming a series of 3-inch horizontal strips ranging from black to white.

Now, along one vertical edge, fix a narrow strip of white, and on the opposite vertical edge, a narrow strip of black paper. By this means we have a comparison of black and white with each of all the other tints. Next get a bunch of white flowers, some pale yellow ones, and some light and dark green foliage. Set up your background-card of strips of paper and arrange the flowers and leaves to come more or less centrally against this background. Provide yourself with a box of Ilford Rapid Chromatic plates, a "3-times" color-screen, and also a "6-times" color-screen.

The problem before us is this—we want to ascertain how the various background paper-strips compare, in conjunction with our white and yellow flowers and green foliage, under various conditions. We shall have to make a number of different exposures, all with the same conditions, such as stop, position of camera, background, and so on.

In order to get the full value of these experiments we should arrange for strong light-and-shade effects on the flowers. This may best be done by putting the flowers on a small table, some 2 or 3 feet from a window to the right or left, and arranging so that light from this window falls only on one side of the flowers, to give a light and a shadow side. The background should be slightly tilted towards the window, so as to be evenly lighted.

What the correct exposure is, will depend upon many things. Month, time of day, kind of light (sunshine, cloudy), and size of window, so that the wider our range of experimental exposures the better; a careful record is, of course, kept of each. — *Photographic Scraps*.



PHILADELPHIA MUSEUMS, ILLUSTRATION NO. 3

FRED D. MAISCH

## A Note on Panoramic Photographs

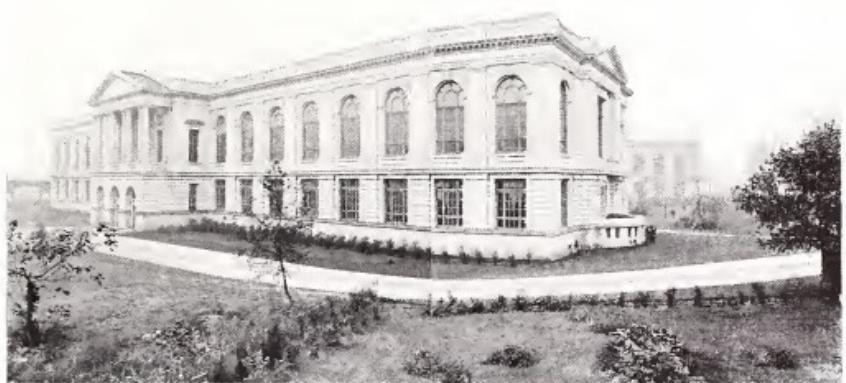
FRED D. MAISCH

THE making of a panoramic photograph by joining prints from two or more negatives depends for its success, primarily, upon revolving the camera on the optical center of the lens, and, secondly, on having sufficient overlap so that the diverging lines (which cannot be avoided) will not be too apparent. The distance between lens and ground-glass must not be changed after the first exposure has been made. If these rules are strictly followed some part of the overlap, exactly equal in size in the two negatives, is sure to be found. Careful trimming and accurate registering of the prints on the mount, or vignetting in a printing-frame intended for the purpose, should make the illusion complete. The camera must, of course, be absolutely level. A careful operator will select inconspicuous details for the overlapping, whenever it is possible.

Illustration No. 1 shows a view of the Philadelphia Museums made with a single element of an old-fashioned Zentmayer doublet which includes an extremely wide angle. Distortion is apparent in the exaggerated length of the front of the building.

It was decided to include a view of the gardens to the right of the buildings. The plan adopted was the joining of two 8 x 10 views made with a Goerz Dagor lens of 8½-inch focus. Examining the image on the ground-glass, it was immediately apparent that the elastic rule concerning overlapping would not avail in this instance, because the largest and most prominent detail occupied the center of the intended view. Added to this difficulty were the long, straight, receding lines of the front of the building. In order to prove the exception to the rule, a point (the window-frame of the second window from the corner) was selected, and measured on the ground-glass, and the two exposures made.

Illustration No. 2 shows the result, a building with at least one more corner than the architect intended. The point finally selected was a trifle to one side of the corner of the front of the building, thus allowing the prints to be joined either to the right or the left of the corner. This was done because it was found that the angle in the end of the building (Illustration No. 3) marked X varied as much as 8° in the two negatives. The angle of the



PHILADELPHIA MUSEUMS

ILLUSTRATION NO. 1

ILLUSTRATION NO. 2

FRED D. MAISCH



left-hand view is  $60^\circ$ , while the one to the right is  $52^\circ$ . The reason for this is, of course, the different point of view; the camera was swung on the optical center of the lens, but the view-point of the lens itself was changed.

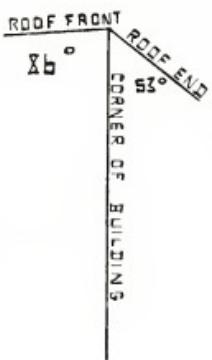
The three diagrams give the roof-angles and their relation to the corner of the building. Diagram No. 1 relates to Illustration No. 2; Diagram No. 2, to Illustration No. 3 (left-hand negative); and Diagram No. 3, to the right-hand negative. It will be noticed that the roof-angles of Nos. 1 and 2 are identical,  $139^\circ$ , but their relation to the corner of the building varies as much as  $7^\circ$ .

In the first instance the corner was almost in the center of the plate, while in the second this point was within an inch of the edge of the plate, the effect of which was to raise the inclination of both front and end roof-lines toward that edge. Consequently we find the front-angle nar-

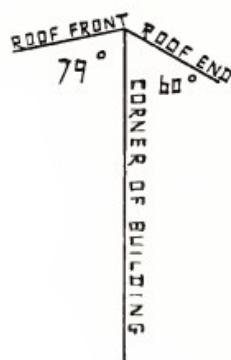
rowed and the other widened. In Diagram No. 3 the movement was toward the other edge of the plate, with a raising of the roof-lines in the opposite direction, the end-angle showing a variation of only  $1^\circ$  as compared with Diagram No. 1, but the front-angle had increased to  $92^\circ$ .

The proposition may therefore be stated as follows: All angles increase as they are moved from the center to the edge of the plate in the direction of the lines forming them.

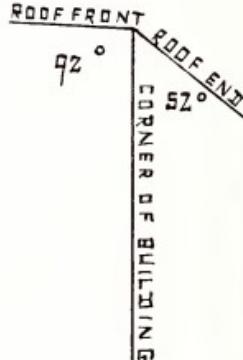
By comparing Diagrams 2 and 3 it will be seen that joining the prints accurately at the corner, the roof-angle would be too small ( $79^\circ + 52^\circ = 131^\circ$ ); but if they are joined a trifle to either side, as stated above, the appearance of a correct angle is preserved. The lines cannot be correct, but by this method the eye is gradually led from one set of lines to the other and in this way readily makes the necessary allowance.



No. 1. Roof-angle  $139^\circ$   
Illustration No. 2  
Left-hand Negative



No. 2. Roof-angle  $139^\circ$   
Illustration No. 3  
Left-hand Negative



No. 3. Roof-angle  $144^\circ$   
Illustration No. 3  
Right-hand Negative



SUMMER-TIME

W. ZENKER



# A Home-Made Print and Negative-Washer

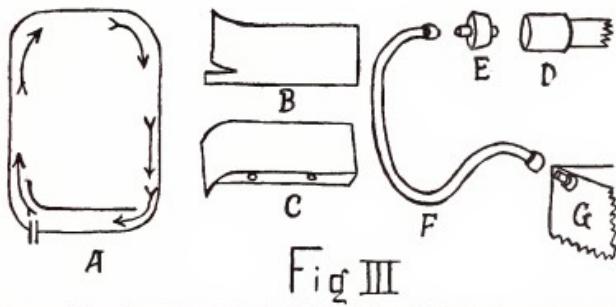
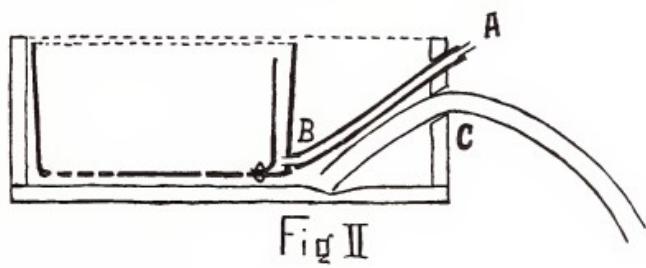
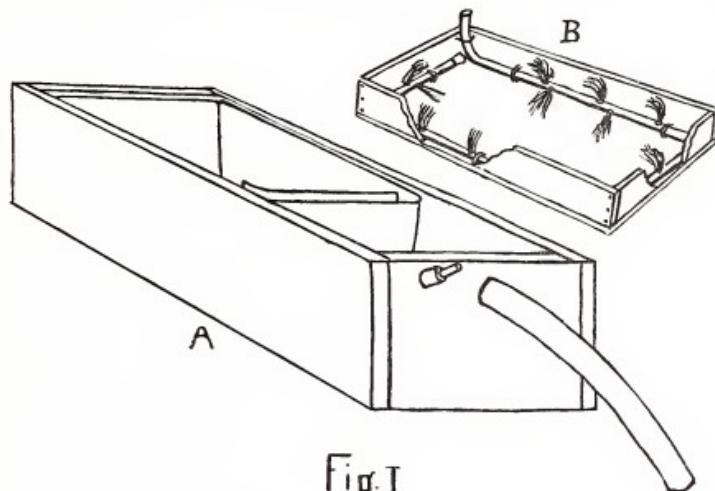
J. G. ALLSHOUSE

**A**N AUTOMATIC washing-box for photographic prints and negatives, ideally simple and efficient, and which can be made in a few minutes' pleasant work at a very trifling cost, is illustrated by A in Figure 1. A small, cheap store-box, of  $\frac{3}{8}$ -inch boards, about 14 inches long,  $5\frac{1}{2}$  inches wide and 5 inches deep, inside measure, was found to hold neatly the upper removable compartment of an oblong tin dinner-pail. This deep tin tray, measuring about 9 inches long,  $5\frac{1}{2}$  inches wide and  $4\frac{1}{2}$  inches deep, outside measure, was set in the wooden box, close to one end and leaving 5 inches empty space at the other end of the box. To keep it from resting on the bottom of the box, two narrow strips of cigar-box wood were tacked lengthwise on the bottom of the box and the pan rests on them along two edges of its bottom, leaving a little space under the tray. A number of small holes were punched in the bottom of the tray near each end, so that if water were poured into the tray it would run out through the holes and fill into the wooden box. To render the box completely water-tight, a second box was built around it, by simply nailing on  $\frac{3}{8}$ -inch or  $\frac{1}{2}$ -inch boards, cut a little larger than the boards of the first box. In the one end of this double-strength box, near the top edge, were made two slanting holes, by boring with an auger and then burning out with a hot poker until just the right size for one of them to receive tightly a piece of  $\frac{3}{8}$ -inch gas-tubing and the other a piece of 1-inch garden-hose. The piece of gas-tubing is about 8 inches long and reaches from a little outside of the smallest hole in the box, down inside of the box until it reaches a  $\frac{3}{8}$ -inch hole that is punched in the tin tray, close to the bottom of the tray in the front end, near one corner; the piece of 1 inch tubing is about 20 inches long, and reaches from the bottom

of the wooden box, in front of the pan, up through the larger slanting hole in the box and extends outside of the box far enough so that the free end can drop a little lower than the bottom of the box. In each end of the piece of gas-tubing was inserted a small brass nipple, about  $1\frac{1}{2}$  inches long and  $\frac{3}{8}$  inch in diameter, several of which were obtained by taking apart one or two old burners of gas-lamps that were lying around. The one nipple is stuck into the hole punched in the pan, and the other is on the outside of the box where it forms a coupling for a longer piece of gas-tubing that is to be attached.

Now, as shown in the sectional drawing, Figure 2, if water enters the rubber tube at A it will fill into the pan or tray at B and, running through holes in the bottom of the pan, will fill the pan and box together until it reaches the level at C, when the 1-inch hose will be filled and, acting as a syphon, will run the water out of the box, completely draining the tin tray. The water will then fill the pan and box again and be drained out again by the syphon, and so on, as long as water enters the small tube. In Figure 2, the holes that receive the tubing are necessarily shown one below the other; really, they are side by side, with the smaller but a trifle higher than the larger. It is necessary only to have the point of supply a little higher than the water-level at C. This level of C is established as high in the box as possible, so that the tin pan is about totally filled before the syphon starts; and in order to do this, the pan sits a little deeper in the box than the illustration shows, and a little is gouged out of the box-bottom so the syphon-hose will be as low or lower than the bottom of the pan, where it draws off the water.

The water when it enters the pan is caused to take a circulating motion, as shown by the arrows in A, Figure 3.



A simple device was made by taking a piece of tin, about  $5 \times 5\frac{1}{2}$  inches, and after cutting a slit 2 inches deep in one end, 1 inch from the edge, the larger portion of the metal was bent in a curve, as shown by B; the smaller part of the cut end and a strip along the whole piece of tin were bent over at right angles and a couple of small holes punched in the bent-over portion, as shown by C. The piece of tin, thus cut and formed, was set up in the pan with the curved end directly in front of where the water enters, and about  $\frac{1}{2}$  inch from the sides of the pan. There it was held in place by two small rivets through the bottom of the pan. The water, being thus given a circulating motion all the time the pan is being filled, separates the prints; or when negatives are set in the pan, the water moves about them, washing them uniformly and thoroughly.

The washer just described is usually operated by placing it at an open pipe that carries a small stream of water from a spring, the pipe being 2 inches in diameter. The end of the pipe may be represented by D, Figure 3; a tapering wooden plug, that can be stuck tightly by hand into the end of the supply-pipe, is shown by E. In a hole bored in this plug is inserted another one of the brass nipples from a gas-burner; to carry the water from the supply-pipe to the washing-box, a piece of gas-tubing, F, about 4 feet long, is used. On each end of this tubing was placed a small brass thimble-part, obtained from the old gas-burners, that just fits over the nipples. The plug and nipple E can then be placed in the pipe D; one end of the tubing is coupled loosely to the plug and the other to the nipple that is in the small piece of tubing in the washing-box, G, the box sitting on the ground or on a block or stool near the supply-pipe. It can be used outdoors anywhere that water can be arranged to run from a pipe or spout, or be attached to a pump, or, if used in homes having running water, can be placed at the sink. After use, the pan can be removed and dried out and the tubing detached and all laid away until wanted. The size named has been

found nice for  $4 \times 5$  plates, prints and post-cards; several negatives can be set slanting in the pan and washed at a time, although it would be better if wanted for a professional's use to make a simple rack to hold a large number of negatives upright in the tray. A larger size washer could also be easily made in the same manner, using such material and parts as may be found handy by the designer and observing the same idea of operation. It would not be necessary to follow every detail of the one described, and the maker may have better materials to work with or can improve on the device with a little ingenuity. For washing prints, the one described is not satisfactory for a large batch; they should be separated by hand several times during the washing; it is, however, well worth making, either by amateur or professional, for washing negatives alone, as it is entirely automatic and washes negatives better and quicker than any costly washing-device made today, and is even adapted for places that have no city water-supply. To make it satisfactory for washing large batches of prints, a tray could be made like in B, Figure 1, and used in place of the dinner-bucket pan. Make a deep tray of thin boards, such as every photographer uses for fixing and washing developing-paper, lining it if desired with table oil-cloth, glued in place. Take a piece of rubber-tubing and lay it around the inside of the tray, fastening it in place with brass staples. Cork one end of the tubing, and attach the other end to the supply-pipe or hose, or to the piece of tubing that supplies the pan in the regular washing-box we have described; nick holes in the tubing 2 inches apart, as an outlet for the water, as illustrated in B, Figure 1. These holes can be made in the bottom of the tray for water to run out of, or otherwise arranged, so that the tray can be used in the syphon washing-box. The water should be let to enter with just enough force that it will keep the prints separated and in motion while the tray is being filled. If there is too strong a force at the supply-pipe, regulate it accordingly.

J. M. WHITEHEAD

THE MOORLAND COTTAGE





SEVEN LITTLE KINGS—YOUNG KINGFISHERS

CHESTER A. REED

## How Wild Birds Are Photographed

CHESTER A. REED

ONE of the most interesting, but one of the most difficult, branches of photography is the making of pictures of wild birds and mammals. I refer, of course, to the photographing of free, living creatures in the field. The interest in this sport—and we may well term it a sport—lies in the very difficulty of the successful culmination. The difficulties are encountered through several causes: the subjects are unwilling to pose for their pictures—in fact they are like children, only more so. They cannot be forced to assume the positions we wish, but must be approached cautiously or else lured within range.

Frequently the conditions are unfavorable for quick photography, and most bird-work has to be done with very short exposures. Our subjects may be in dimly-lighted woods, in tree-tops or in marshes. The enthusiastic camera-hunter often longs for a machine that will combine all the qualities of an aeroplane, a submarine and a city lighting-plant.

But let us pass over the difficulties, for they will impress themselves soon enough and, all too forcibly, upon those who undertake the sport, and let us consider the methods that may be used so that

a fair degree of success may reward their efforts in this line.

A question I am frequently asked is, "What do I need in order to make good bird-pictures?" My reply invariably is that the first requisite is *patience*—a lot of it—and a camera; and it is the man behind the camera that secures the results, not the make of the instrument. The best instrument for the beginner is a long-focus 4 x 5 plate-camera. You can, of course, use a film-pack if you wish, but the camera must be one that will allow of focusing the image on a ground-glass. The bellows must be long enough to allow of working at least within three feet of the subject.

Unless you have a naturalist's Graflex and long-focus lens, all pictures of small birds, to have any practical value, will have to be made at very close range, say three to five feet.

Obviously you cannot approach within this distance of a wild bird, focus your camera and make an exposure. The camera must be placed where the subject will come before the lens and at the proper distance. The one thing that will always bring a bird back, in spite of all danger, is its nest. It is at the nest and in its

immediate vicinity that most good pictures of small birds are obtained.

Now a word of caution before explaining how the camera is arranged before a bird's home. The parental instinct in a bird is the strongest when there are young in the nest; they must be fed, and fed often. It is at this period that the best and surest results will be obtained. You will notice that most nests are shaded from the sun's rays by intervening leaves. Young birds will succumb to the heat if left in the direct rays of a summer sun for a long period. Therefore the shade must never be permanently destroyed for the purpose of making pictures. Remember that a few pictures gained are not worth the lives of a nest of young birds, and act accordingly.

My first bird-pictures were made in 1896 with a 5 x 7 Premo, using kits for 4 x 5 plates, and equipped with the regular rectilinear lens. Since then I have made several thousand pictures of living birds and have used all sorts of apparatus from the crudest of home-made to the best and most expensive cameras and lenses that the market affords. I will admit that I have never made any better pictures, from a photographic or ornithological standpoint, than I did with the first equipment I used. Of course the Graflex makes it possible to secure flight-studies of the larger birds that cannot be secured with a non-reflecting camera, and occasionally affords "lucky shots" at birds that could not otherwise be taken. Fully three-quarters of my bird-negatives, however, have been made with the camera on a tripod and with the "between-the-lens" shutter.

For first efforts in bird-photography it is best to use a nest on the ground or within three or four feet of it. We will consider that such a nest has been located; it may be a sparrow's, a thrush's, a warbler's or any of the number that make their nests in favorable situations for our purpose. We will discuss the two methods that are in vogue for securing the pictures we want. The first is the one that naturally suggests itself—one that is most

often used because it requires but little equipment, other than the camera.

The camera is placed before the nest, on its tripod, in the position best suited regarding light, surroundings, etc., with the lens (if you are using the ordinary 4 x 5 camera with 6-inch lens) about three feet from the front edge of the nest. The image of the nest must be in the centre of the plate and allow room each side for the bird to appear and still be in the field of the lens. The sharpest focus should be just beyond the middle of the nest, for the chances are that your bird will appear in that plane. The arrangement of the foliage about the nest has to be decided to suit the conditions that may exist. Nothing should be permanently disturbed, but branches or plants in the foreground may be tied to one side so as not to blur the picture.

The branch or twig, that shades the little birds from the sun, should have attached to it a black linen thread, this passing around some neighboring branch and leading to your place of concealment, so the branch may be drawn to one side and allow plenty of light on the nest when you see the parent bird returning. This arrangement is of as much importance to the photographer in securing good results as it is to the comfort of the little birds. Young birds wilt, or lose their vitality, very quickly when exposed to the hot rays of the sun. By shielding them until just before you expect to make an exposure, and then slowly and carefully drawing the shade away, they will be in good condition to stand up and pose when their parent comes with food.

You may now select a place of concealment for yourself back of the camera; usually it will be at some distance, say fifty to one hundred feet, where a bush affords cover. Either one of two methods may be used to release the shutter from a distance at the proper moment. Most bird-photographers use a long tube and work the shutter with a large bulb or even with a bicycle-pump. I, personally, have always preferred a thread, as it is much more certain in its action, and can be used at any distance, provided that you



WILSON THRUSH FEEDING YOUNG

CHESTER A. REED

carry thread enough. To use this method, you should make a short extension for the shutter-release to get greater leverage, and to the end of this attach sufficient weight to release the shutter with certainty. You then hold the shutter closed by means of a match, or splinter of wood, resting on the camera-bed and under the release; the string is attached to the upper end of this splinter. A slight pull will trip it and the weight will work the shutter with certainty and without jar.

When you have everything in readiness up to this point, withdraw the slide of the plate-holder, wrap the focusing-cloth about the camera, leaving only the lens and shutter exposed. If you wish,

you can put a few twigs over the top of the camera and tie some to the legs of the tripod. These last precautions sometimes prevent passersby from noticing the outfit, and so avoid interruptions, but are wholly unnecessary so far as the birds or taking the pictures is concerned. Retire to your place of concealment, and wait, for you will soon find that making this kind of picture is chiefly a waiting-game. You must keep entirely out of sight and make no movement, whatever, no matter how cramped your position may become. No matter if you are a hundred feet or more distant from the nest, if the birds spy you, they will devote all their attentions to you and none to their hungry offspring.



OSPREY AND NEST  
RED-EYED VIREO FEEDING YOUNG  
CHESTER A. REED



A good pair of field-glasses facilitates watching the birds and enables you to make the exposure when the birds are in just the position you want. If either of the parents visits the nest within an hour, you will get your picture — perhaps! If they do not return within that time, it is better to remove the whole outfit and let them feed their little ones in peace a few times. As I said early in this article, the lives of the little ones are worth more than a few pictures. I have many times tried to photograph birds when it was doubtful that they ever would return to their homes while the camera was there, but usually they will within the hour.

The second method, and the one that is used by the most successful workers, is to erect a tent beside the nest, in which to conceal both the camera and yourself. This enables you to see, at a distance of but a few feet, just what takes place at the nest and to photograph the most interesting incidents. It also allows the taking of an unlimited number of pictures without disturbing the birds during the plate-changing process.

The best form of portable tent is that devised several years ago by Mr. Chapman. It consists of an ordinary umbrella, with an extension to make the handle about six feet in length, and a covering to drape over it and hang down to the ground. For work in the woods or fields a dull green covering is preferable; if one is to photograph shore-birds, too, the tent should be reversible, green one side and very light brown the other.

One would hardly think that birds would so overcome their fear as to return to a nest barely two feet from the side of a large tent, but such is the case. If the work is done quickly and with little noise and confusion, and you retire within and make no sound, they appear to accept the change as a part of the landscape and soon go and come, without fear, just as they did before. Those of you who have not tried it cannot imagine the thrill of exultation experienced when a shy, wild bird hops carelessly about, within reach of the hand, apparently not aware of your presence. Often it is necessary

to have an assistant and usually a second person will facilitate the work, for two can get the outfit in readiness more quickly and, after you are concealed in readiness, the helper can leave. The birds, especially sea-birds, seeing a person depart, will usually return sooner than they would otherwise have done.

Other implements frequently have to be brought into play. A large mirror in the hands of an assistant can often be used in lighting nests situated in dark nooks. Ball and socket joints are handy when it is convenient to attach the camera to a limb in a tree. Usually, when working in trees, I tie the tripod-legs to different branches, as this makes a very stable support for the camera and by throwing the tent over the whole outfit, as good results can often be obtained as when using the tent on the ground. Bird-photography is something that necessitates change of program constantly and the different problems that arise can be solved only as they are encountered.

A word in regard to the exposures necessary to secure good results. Of course if you have a sitting or brooding bird, time-pictures may often be made; many have been taken with exposures of several seconds' duration, the proper stop, of course, being used. If, however, the bird is feeding its little ones, it will be necessary to use the shortest exposure that you can. In good light  $1/100$  second will catch a large percentage of them. I have taken many pictures, even with this short exposure, that showed much motion; in fact, in some of them the adult bird has made a complete beat of the wings during the exposure. The head of a bird moves very quickly during the feeding-process and you must expect to have a good many negatives spoiled by motion, but you can be thankful for the ones that do come out well.

Above all, do not become discouraged by failures. Many a time have I spent an entire day without a single negative to reward me. I think I have had the average degree of success, yet probably not more than one in four of my negatives have been satisfactory to me.



DECORATIVE LANDSCAPE

SIXTH AMERICAN PHOTOGRAPHIC SALON

JOHN F. JONES

## EDITORIAL

### The Discriminating Public

THE question is frequently raised whether the practitioner in any profession should labor in accordance with high ideals, without making unreasonable pecuniary sacrifices or whether to ignore the ethical side altogether. The arts, as well as the mercantile and professional life, furnish abundant examples of the nobler and baser sorts. Of the former none is more uplifting than the much-discussed dramatic production, "The Music Master"; and it is a healthy sign of the times that the author, producer and the actors have all shared in its splendid and well-deserved success. That the great general public appreciates honest and meritorious achievement cannot be doubted. On the other hand pecuniary success also attends the efforts of charlatans and impostors—individuals of low and sordid aims. No wonder that many a young man on the threshold of his career asks himself: "Does it pay to be honest?" This ethical problem never troubles the photographer who regards his customers as objects of his rapacity, or who gives them inadequate service in the form of inferior pictures, conscious that they have little or no sense of discrimination. Such a man is no credit to the craft. There are others who encourage the public to believe that the glaring, chalk-like effect in portraiture is artistic and desirable, because they are incapable or not disposed to produce better work.

### German Camera-Lenses

IN commenting on an editorial in the February issue a correspondent asks which we consider the largest lens-producing country. After consulting reliable statistics about the photographic industries of Europe and America we find that, both in number and quality of camera-lenses produced at the present

writing, Germany ranks first. Of the fourteen large optical works to be noted in that commercially-energetic country, seven belong to the first rank. Four of these—Carl Zeiss, Voigtländer & Sohn, C. P. Goerz and Steinheil & Söhne—enjoy world-wide celebrity, whereas the remaining three—Emil Busch, Schulze & Billerbeck and Hugo Meyer—are producing instruments which, in workmanship and efficiency, compare quite favorably with those of their more famous competitors, a fact emphasized by the substantial honors accorded them by the jury of awards at Dresden last year.

Most of the other seven firms make low-priced camera-lenses of fair quality, but are distinctly outclassed by those already mentioned. One of them—Oscar Simon—captured a silver medal, while all the others were absolutely ignored. Workers intending to acquire new lenses are advised to procure them from photographic firms of established reputation. They will then run no risk.

### The Meaning of Antinous

MONG the additions recently made to photographic nomenclature is the term "Antinous," which is applied to Watson's metallic shutter-release. This device is attached to all up-to-date shutters, and, on account of its certainty of action and extreme compactness, is rapidly superseding the well-known rubber bulb and tube. The word is not derived, as might be supposed, from "Antinous," the page of Emperor Hadrian, whose beautiful marble statue figures prominently among the art-treasures of the Vatican, but from "Anti-pneu," a contraction of "Anti-pneumatic." Neither of these terms, however, was considered sufficiently euphonious, or so suitable for registration, as "Antinous," hence the latter form was finally adopted. Accepted as a legitimate technical term, it is pronounced "An-*ti*-nus," in three syllables, with the accent on the first.

# THE ROUND ROBIN GUILD

*An Association of Amateur Photographers*

Conducted by ELIZABETH FLINT WADE

This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography, although advanced camerists are just as welcome and many are numbered among its members. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free and may be obtained by sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston.

Send a stamp for complete prospectus.

## Gum-Bichromate Prints

### THIRD PAPER, PAPERS AND NEGATIVES

THERE is no printing-process in which the amateur has so wide a range as in the gum-bichromate process. He has almost an unlimited choice of papers. He may select any degree of smoothness or roughness; he may use papers of light, medium and heavy weight, and he may choose almost any quality of paper from writing-paper to the beautiful textures of the water-color papers. He has an unlimited choice of colors, almost, as he has of papers, his range being limited only by the skill which he possesses of combining and mixing his pigments.

In the March number of the Guild mention was made of the Michallet paper. It is particularly good for coating and is adapted to pictures which have broad masses of lights and shadows, being better designed for landscapes having this quality rather than for portrait-work. It is also fine for sketchy negatives which show form rather than detail. In the gray tint, and coated with warm black, the effect is very much like a charcoal drawing, particularly if the amateur has been clever enough to develop his print with this effect in view.

Another rough paper is the Whatman paper, which comes in several weights, of different surfaces, and in several tints. In coating it much care must be taken to see that the coating is well brushed into the depressions of the paper when the rough-surfaced paper is used. This paper is a good choice for portrait-negatives where there are no very strong high-lights and the figure is well modeled.

Another paper, also mentioned in the March number referred to, is the Allonge. This paper is of a smooth surface but has the effect of a slightly rough paper. It is of a light weight and comes in both white and cream tints, and is the choice for portraits with soft shadows and subdued high-lights. It takes the coating beautifully, gives the least trouble in after-treatment, and never gets "cranky," as do some of the other papers, and refuses to work. It will give fine prints from delicate landscape-negatives, and also of water-scapes where the water is smooth and only a little ruffled. It is fine for flower-studies and for decorative prints. Several members have inquired about this paper as to where

it may be purchased. All large dealers in artists' supplies carry it, and if one's dealer does not have it in stock he can order it. It is inexpensive and well worth using for negatives of the qualities described.

The Rives paper is good for the ordinary negative, being of smooth surface and of excellent stock. This is the old-time photographic paper. It takes its name from the town in which it is made — Rives near Grenoble.

Good quality of writing-paper may be used for gum-prints. The fine stationery made at the present day comes in all sorts of textures and tints and one has only to choose which one he thinks is best adapted to his negative. These papers do not need sizing, and will give a good variety of textures, as well as tones.

Cartridge-paper has been used by some expert workers, though the beginner is advised to wait until he has become somewhat skilful in coating and printing his paper before trying this kind. Some very effective prints have been made on it by experts in the art of gum-printing.

The Japanese tissue-paper is a paper which one should try when advanced enough to be sure of coating and printing. It is very thin and, to sensitize, it should be laid on a sheet of glass and held in place with clips, as if not, it is apt to wrinkle and defy the amateur to straighten it. It does, however, make a beautiful medium for certain kinds of negatives.

A firm which manufactures beautiful cover-papers has added to its "repertoire" and now makes a series of papers of different weights and tones specially for sensitizing. Generous samples are sent to any one desiring to try the paper, and doubtless the amateur will find in the collection papers adapted to almost any kind of photographic work, in the way of sensitizing, that he wishes to do.

While one may make prints from almost any kind of a negative, the ideal negative for gum-prints is one which is rather thin and which has good gradations of lights and shadows. With such a negative one can hardly ever fail in making a good print. Indeed, unless for commercial work, such a negative renders the best results on almost any kind of paper. For dense negatives the coating of the paper should be thinner and the printing carried on till there is no danger of the color washing out in the development.



IN MEXICO

JUAN B. MOREAU

IN THE STORM

LIZZIE M. PEABODY

HONORABLE MENTION — MY FAVORITE PHOTOGRAPH





THE THUNDER-STORM

FIRST PRIZE — MY FAVORITE PHOTOGRAPH

F. F. SORNBERGER

One of the advantages of gum-printing is that it is so easy to leave out of a picture the portions or objects not desired. This is done by after-treatment with a brush, the details of which will appear in the next number of *PHOTO-Era*. It is with gum-printing as it is with any other art, one must learn to creep before he can walk.

#### Toning and Toning-Solutions

If the amateur knew a little more about the chemistry of photography he would not only have less failures in his work, but he would also save much time and money and vexation of spirit.

It is safe to say that probably not one amateur in a hundred understands just what is meant by "toning" a print. They know that submitting the print to certain solutions changes its color, but the reason therefor is beyond their ken.

Properly speaking, the print is not "toned;" it is colored. The coloring gives a very pleasing "tone," whereas if the print is simply fixed in a bath of hyposulphite of soda, the image is preserved, but the color is an ugly, yellowish brown. The hypo dissolves out the silver salts which have not been acted upon by the light — that is its only mission. In order to color the print it must be subjected to the action of certain chemicals which act directly on the silver salts.

The paper is coated with an emulsion containing the sensitive silver chloride. Silver and gold

have a great affinity for each other. Gold when finely divided is of many shades from a rich red to a deep blue. The combining of the red of the silver chloride with the deep blue of the gold produces beautiful sepias, purplish blacks and pure black tones.

The gold used in toning is made into chloride of gold, and in this form dissolves readily in water. The toning or coloring-bath for the print must be neutral; that is it must be neither too strong in acid nor in alkali. To render it neutral, acetate of soda or bicarbonate of soda is added to the gold-solution. To test the bath and find out if it is neutral, a piece of blue litmus-paper is dipped into the solution and if it turns red the bath is too strong in acid and alkali must be added until the paper remains its original color. To test the bath for alkali, a piece of red litmus-paper is used and if it turns blue then the bath is too strong in alkali, but if the paper remain unchanged it shows there is not a surplus of alkali.

The chemical action of light on the silver in the paper has changed the nature of the silver salt and it is now a gold-reducing agent, and the gold in the solution is ready to be precipitated when it comes in contact with such an agent. When the silver-paper is placed in the gold-bath the sub-salt of silver, which has been formed by the action of light, decomposes the gold and attracts



PORTRAIT OF A BOY

A. B. HARGETT

the gold to itself. The gold is deposited on the print in a very fine powder and changes the reddish color of the print to brown or black. That part of the print which has not been acted upon by light still contains on its surface the unaltered silver chloride, but as this has no reducing power the white portions of the print do not change in the gold-solution.

The office of the alkali in the gold-solution is to separate the gold from the chlorine. It unites with the chlorine and sets it free from the gold, while the chlorine in its turn unites with the hydrogen in the water and forms a new chemical combination termed sodium trichloracetate, and hydrochloric acid. The former has no disastrous effect on the print, but unless there is enough alkali in the bath to neutralize the hydrochloric acid, or, in other words, to absorb the chlorine, the chlorine turns about and attacks the silver and stops the action of the gold. When this

occurs the result is a flat gray-looking print, because the bath was too weak in alkali.

Every silver-print toned with gold contains four parts of silver to one of gold. The quantity of either is very small, one grain of gold being sufficient to color a goodly number of prints.

Formulas for toning are many and varied, the different chemicals used in the toning-solutions modifying the blue-black color which is the result of the action of the gold. A toning-bath for very rich warm brown tones is made of 2 grains of chloride of gold; 60 grains of acetate of sodium, and 10 ounces of water. This bath is made up twenty-four hours before using. The prints toned in this bath must be printed until the high-lights begin to discolor, for the print loses detail in the fixing-bath. The proportions of the fixing-bath are one ounce of hypo to twelve ounces of water. This toning-bath will keep indefinitely if the bottle is tightly corked.

SECOND PRIZE  
MY  
FAVORITE PHOTOGRAPH

THIRD PRIZE  
MY  
FAVORITE PHOTOGRAPH



A MIDSUMMER DREAM

JOSEPH BROWN

Another toning-bath which may be used at once, and which produces sepia tones, is made of 1 grain of chloride of gold; 4 grains of bicarbonate of soda, and 8 ounces of water. This bath will not keep but should be mixed in small quantities and used at once.

A combined bath is a bath in which the toning and fixing of the print is completed in one solution. The objection to the combined bath is that it gets weak in fixing qualities, and one should take care that the proper quantity of hypo is contained in the solution. Following are two of the best baths for fixing and toning in the same solution.

No. 1. 3 ounces of hyposulphite of soda; 6 grains of chloride of gold; 15 ounces of water. When thoroughly dissolved add a few drops of a saturated solution of chalk.

Place the prints in this bath without previous washing. They color rapidly so it is wiser to

put only a few in the bath at a time. Have ready a salt stop-bath made up of an ounce of salt to twenty ounces of water and as soon as the print is colored correctly place it in the salt-bath for five minutes. The action of the salt stops the coloring which sometimes goes on if the print is simply placed in the washing-water. Wash well and dry.

No. 2. 4 ounces hyposulphite of soda;  $3\frac{1}{2}$  drams sulphocyanide of ammonium;  $1\frac{1}{2}$  drams of acetate of lead; 1 dram citric acid; 1 dram of powdered alum; 1 grain of chloride of gold. Dissolve the chemicals in the order given and allow the bath to stand until it is cleared, which will be about twenty-four hours. Decant off the clear liquid and use as directed for the formula just given. The action of the sulphocyanide of ammonium prevents the half-tones coloring quicker than the shadows, while the acetate of lead quickens the action of the bath.

Platinum may be used in place of gold in the coloring of prints. It gives fine black tones and, when used with matt-surface paper, resembles a genuine platinum print. A well-tried formula is as follows:

One and one-half grains chloro-platinite of potassium; 20 grains of chloride of sodium; 20 grains of citric acid; 20 ounces of water.

Before toning, the prints must be well washed to remove the unused silver chloride, and are then placed in the bath two or three at a time and kept moving until they have reached the desired color. They are then placed in a bath made of one and one-half ounces of carbonate of soda and twenty ounces of water. They are then fixed, washed well and dried. It is sometimes found desirable to add sulphite of soda to the fixing-bath, using an ounce and one-half to one ounce of hypo and twelve ounces of water.

Chloride of gold comes in fifteen-grain bottles and the simplest way to measure it is to dissolve the fifteen grains in seven and one-half ounces of water. This gives a grain of gold to every half-ounce of the solution. When making up a solution which calls for a certain number of grains of gold take as many half-ounces of the gold-solution as there are grains in the formula and reduce the quantity of water called for, by as many ounces of the gold-solution as you have taken. If two grains are needed, then take an ounce less of water. This will keep the formula in the right proportion.

There are so many variations of the toning-bath that one can obtain almost any shade of brown or sepia, purplish black or clear black, by varying the ingredients and taking a longer or shorter time for the coloring of the print.

Gaslight papers have in a measure superseded the printing-out papers, but to one who wishes variety in his prints the printing-out papers are always chosen.

## The Round Robin Guild Monthly Competitions

*Closing the last day of every month.  
Address all prints for competition to  
PHOTO-ERA, The Round Robin Guild Com-  
petition, 383 Boylston Street, Boston, U.S.A.*

### Prizes

*First Prize: Value \$10.00.*

*Second Prize: Value \$5.00.*

*Third Prize: Value \$2.50.*

*Honorable Mention:* Those whose work is deemed worthy of reproduction with the prize-winning picture, or in later issues, will be given Honorable Mention.

Prizes may be chosen by the winner, and will be awarded in books, magazines, enlargements, mounts, photographic materials or any article of a photographic or art nature which can be bought for the amount of the prize won.

### Rules

1. These competitions are free and open to all photographers, whether or not subscribers to PHOTO-ERA.

2. As many prints as desired, in any medium except blue-print, may be entered, but they must represent the unaided work of the competitor, and must be artistically mounted.

3. The right is reserved to withhold from the competitions all prints not up to the PHOTO-ERA standard.

4. *A package of prints will not be considered eligible unless accompanied by return-postage at the rate of one cent for each two ounces or fraction.*

5. *Each print entered must bear the maker's name, address, Guild-number, the title of the picture and the month in which the competition occurs, and should be accompanied by a letter SENT SEPARATELY, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.*

6. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA. If suitable, they will be reproduced, full credit in each case being given to the maker.

### Subjects for Competition

April — "Downhill Perspective." Closes May 31.

May — "Sunlight and Shadow." Closes June 30.

June — "Landscapes with Figures." Closes July 31.

July — "Marines." Closes August 31.

August — "In the Country." Closes September 30.

September — "General." Closes October 31.

October — "Scenic Beauties of America."

Closes November 30.

November — "Group Portraits." Closes De-

cember 31.

### Awards — My Favorite Photograph

First Prize: Dr. F. F. Sornberger.

Second Prize: A. B. Hargett.

Third Prize: Joseph Brown.

Honorable Mention: Leon Jeanne, Juan B. Moreau, Lizzie M. Peabody, J. Will Palmer, Oswald Rothmaler, D. Edward Jones, A. G. Smith, R. E. Weeks and Samuel S. Ludlum.

## BEGINNER'S COLUMN

### Quarterly Contests for Beginners

*In these contests all Guild members are eligible EXCEPT those who have received Guild prizes in the past. Aside from this restriction, the rules which govern the monthly competitions will be in force here and the prizes will be payable in the same manner.*

All prints submitted, except prize-winners, will be returned if postage is sent.

A FEW HONORABLE-MENTION PRINTS — MY FAVORITE PHOTOGRAPH

*From Left to Right:* "Almond-Stimmung," Oswald Rothmaler; "Portrait of G. A. Brandt," J. Will Palmer; "Path through the Pines," D. Edward Jones; "Rising Mist," Samuel S. Ludlum.



## Prizes

*First Prize:* Value \$10.00.

*Second Prize:* Value \$5.00.

*Third Prize:* Value \$2.50.

*Honorable Mention:* Those whose work is worthy will be given Honorable Mention.

## Subjects for Competition

SOUVENIR-PHOTOGRAPHS—CLOSES JULY 15, 1910

It is intended that this competition shall include photographs made as souvenirs while away from home, whether in one's own country or abroad, or only on a short vacation-trip. Thus they will portray objects of historic or other interest, and incidents worthy to be recorded. Figures may or may not be included.

FAVORITE PETS—CLOSES OCT. 15, 1910

The subject of this competition seems self-explanatory, consisting, as it does, of dogs, cats, monkeys, rabbits, birds, etc., and tamed wild animals.

*"Impressionism as moonlight, or a little mist, softens a landscape and ameliorates what is aggressive."*

## Answers to Correspondents

Readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.

JAN. J. J. Yes; the glossy prints reproduce better than prints made on matt-surface paper. The camera about which you ask is a fine one for all-around work. I think, however, for portrait-work you would like the regular portrait-camera better, or you could have a portrait attachment for your present lens.

MYRON DODGE. Use the manilla envelopes made specially for storing negatives instead of trying to make the envelopes yourself. They are very cheap, costing only twenty-five cents a hundred in the four by five size. It is not necessary to varnish your negatives, indeed it is sometimes a detriment to have them varnished. If they are protected by the envelope, when not in use, and carefully handled there is no danger of scratching or injuring them.

FRANCES G. R. Old or used developer acts the same as bromide of potassium. It is a restrainer. It checks the development, clears the plate and is excellent to use for plates which have been much over-exposed. Do not use old developer if it has oxidized, that is turned brown or black.

M. L. BRANCH. Probably your negatives were exposed to too strong a light during the fixing-process. Sometimes if the negative is

exposed to a white light before fixing the plate will be fogged.

L. L. T. The reason why your carbonate of soda formed the hard lump when put into the water was because you did not stir the water when adding the soda. When turned into the water in a mass without stirring the result is a hard lump which is not at all easy to dissolve. Add the soda slowly and stir the water with a glass rod while doing so and you will have no trouble with the soda not dissolving.

W. A. BLAKE, AND OTHERS. The article on gum-prints is to be supplemented with others giving in detail all phases of this interesting process. In beginning the work do not attempt too much. Try the simple coating with the transparent colors and when you have become proficient in coating and printing, then you will be able to do more ambitious work.

GEORGE INGALLS. There is no printing-out paper which tones black and white by simply subjecting it to a bath of hypo. You can use the W. D. platinum paper which is a partly printed and partly developed paper and gives pure black-and-white tones. The print is made and simply placed in hot water till developed, then transferred to a bath of citric or muratic acid to clear the whites. This is a very good paper and the results are always certain unless one over-prints.

HENRY TURNER. For samples of cover-papers send direct to the manufacturers. The imported papers may be had of the New York dealers. Japanese papers are very fine for making decorative prints, especially on the Japanese rice-paper. These papers are usually carried in stock by art-dealers or by large dealers in papers.

B. M. J. A glycin developer which will produce soft negatives is made in the following proportions: Fifteen grains of glycin; one-fourth of an ounce of carbonate of potassium and ten ounces of water. Plenty of time must be allowed for development. There is little or no danger of fogging, even if the plates are left in the developer some time, though one should take the precaution to cover the tray if left standing.

SAMUEL D. White ink for titling the negatives or lantern-slides may be bought ready prepared, a bottle costing ten cents, but one may use the ordinary water-color Chinese white—the moist color. Squeeze a little from the tube and add a few drops of water—just enough to make it flow from the pen. This ink can be used on the reverse-side of films but will not work on the glass-side of a plate.

DELIA G. S. You can use a blue pencil for retouching blue-prints, the color almost matching the color of the blue. Water-color is, however, the best, the ultra-marine being about the color of the blue-print and the water-color does not show on the print as do the pencil-markings.

G. L. KANE. You can buy glass paper-weights with a space hollowed out beneath to receive a photograph. They are mounted by optical contact and the picture is then varnished

to prevent injury. A glass weight of this description costs fifteen cents.

**PRESTON M.** You can buy a cutting-board for cutting films apart after being exposed. An opening in the board corresponds to the opening in the Kodak when turning on the film in the camera. When the film is in the right position for cutting, this exposure number shows through the opening in the board. If you use pyro for developing, that would account for the stains on the film. The stains are doubtless due to prolonged development.

**F. D. S.** You will find the arrow paste-spreader one of the handiest articles for use in pasting the edges of prints. It has, as the name indicates, an arrow-shaped head which is covered with rubber and it spreads the paste evenly and smoothly. I would advise using the paste specially made for photographic purposes. It is smooth in texture, of a creamy consistency and will keep indefinitely, besides it saves a lot of time and trouble in the making.

**C. D. SAYLES.** White and light-colored flowers may be photographed on the ordinary sensitive plates, but the deep reds, the yellows and purples require an orthochromatic plate in order to render the true color-values. If the foliage of a flower is a very dark green it is wiser to use the orthochromatic plate in photographing such specimens, as where the green is so very dark it is hard to get detail and the leaves appear as a black mass without much form.

**ANNA S. E.** A toning-bath which gives rich purplish tones to silver prints is made by using chloride of gold and acetate of soda. Take  $7\frac{1}{2}$  grains of chloride of gold,  $3\frac{1}{4}$  drams of acetate of soda, and twenty ounces of water. Tone till the desired color is reached, then fix and wash. Use a fixing-bath of one ounce of hypo to sixteen ounces of water.

**J. H. RYAN.** Do not try to intensify or restore the print which you have until you have first made from it a negative. Sometimes one gets an excellent negative from what seems an almost hopeless print. The negative may also be intensified, should it not prove of sufficient density. The self-toning paper, though much discolored, will bleach out in the fixing-bath, the discoloration not having any deleterious effect on the print.

**CECIL L.** You can make contact lantern-slides from your Kodak film negatives the same as from glass plates. They are developed in the same way as a negative, only, of course, they come up a positive. Any good negative-developer will answer for making the slide, but you will find the metol-hydroquinone one of the most satisfactory.

**S. H. GREEN.** No, it is not necessary to use distilled water for mixing your photographic solution even if the formula calls for it. If the water is not clear filter it through filtering-paper to remove particles of dirt and it will answer every purpose as well as the distilled water, which need not be used except for very delicate operations.

## Print-Criticism

*Address all prints for criticism, enclosing return postage at the rate of one cent for each two ounces or fraction thereof, to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. Prints must bear the maker's name and address, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.*

"**A DAY IN FEBRUARY,**" S. A. C.—This is a very pleasing winter-picture, very artistically printed and mounted. It shows a picture of a creek in the immediate foreground, which winds and curves away between wooded banks on one side and a snowy field on the other, with here and there a bit of shrubbery. Though the creek takes up the whole of the foreground, the shadows on the water are so soft and deep that one does not think of this feature, which in similar cases often spoils a picture. The composition of this picture is very good, but the trees along the bank are printed so dark that they appear only as a black mass. A lighter printing on this portion would greatly enhance the artistic merit of this picture. Softer paper and a little dodging will bring the result.

"**A MISTY VALE,**" J. W. N. A winding creek with snowy stretches on both sides furnishes material for a very attractive print. In the foreground are a few scattered bushes with weed-stalks rising above the snow. A small tree at the left is well defined, its branches sharply outlined, but beyond in the middle-distance and as far as the eye can penetrate are indistinct outlines of trees seen through a mist, an atmospheric effect which is so hard to secure in a picture and which is so often seen under certain weather-conditions.

The data accompanying this excellent picture state that it was taken on February 27, rather dark, and during a short cessation of a downpour of rain. The lens was used with wide-open aperture, a ray filter being interposed, and the exposure was one-tenth of a second. The print is finished on Artura rough paper. The tone is a soft gray and very pleasing.

This picture is without a doubt one of the best of its kind that has come to the editor's table in a very long time. The point of view is well chosen and the picture well finished. The only adverse criticism is the color of the mount chosen. The print is gray and is mounted on a brown card with a line of white intervening between the print and the mount. A soft gray mount of deeper tone than the print would be more artistic and would bring out the quality of the print much better.

"**SUNLIGHT AND SHADOW,**" W. E. B. In direct opposition to the picture just mentioned the present subject is a creek in summer with stretches of meadow-land sloping down to the

edge of the water, and trees with their lightly-springing foliage drooping over the stream. The charming effect in this picture is that it really depicts sunlight, and one feels when looking at it as if he saw the sun actually shining on the scene, for the lights and shadows are so well managed. The picture itself has more the effect of a wash-drawing than an actual photograph. This would make a very charming picture if enlarged. The mounting is well done with the exception that the print is placed in the center of the card instead of leaving more of a margin at the bottom than at the top.

"A SAN FRANCISCO RUIN," C. M. K. Here are seen the ruins of a colonnade with what may have been arched windows, or perhaps simply open arches, the whole half-hidden by evergreens and shrubbery. It stands on a slight eminence, the ground sloping down to a level park or common. This picture was evidently taken either early in the morning or in the late afternoon, as the shadows are long and soft, giving a pleasing

effect of lines. The principal fault of the picture is the point of view which brings the ruin directly in the center of the picture. The sky, too, is a white expanse and, therefore, the perspective is somewhat lacking. If clouds were printed into the sky and the picture trimmed at the bottom, top and right side, a very pleasing print would be the result. The tone of this print is very good. It is unmounted, and an unmounted print never shows to advantage.

"THE PORTAGE," M. M. D. This is a pretty scene showing the head of a lake with a group sitting on the bank, and a canoe upturned on the shore. The point of view is well chosen and the detail well brought out, but the lake and sky are both perfectly white, showing that the picture was taken in the middle of the day when the sun was at its brightest and there were no shadows to give breadth to the picture. While such a picture is of value as a record of an outing it has little artistic merit, owing to the time of day chosen for the exposure.

## Plate-Speeds for Exposure-Guide on Opposite Page

### Class 1/3

Lumière Sigma  
Lumière Non-Halation Sigma

### Class 1/2

Barnet Super-Speed Ortho

### Class 3/4

Barnet Red Seal  
Imperial Flashlight

### Class 1

American  
Ansco Film, N. C. and Vidil  
Barnet Extra Rapid  
Barnet Ortho Extra Rapid  
Barnet Studio  
Cramer Crown  
Cramer Crown Non-Halation  
Cramer Instantaneous Iso  
Cramer Inst. Iso Non-Halation  
Cramer Isonor  
Cramer Trichromatic  
Ensign Film  
Hammer Special Extra Fast  
Ilford Monarch  
Ilford Zenith  
Imperial Special Sensitive  
Imperial Non-Filter  
Imperial Orthochrome Special  
Sensitive  
Kodak N. C. Film  
Kodloid  
Lumière Film  
Magnet  
Premo Film Pack  
Seed Gilt Edge 27

Standard Imperial Portrait  
Standard Polychrome

Stanley Regular

Vulcan

Wellington Extra Speedy

### Class 1 1/4

Cramer Banner X  
Cramer Banner X Non-Hala-  
tion

Eastman Extra Rapid

Hammer Extra Fast

Hammer Extra Fast Ortho

Hammer Non-Halation

Hammer Non-Halation Ortho

Seed 26x

Seed C. Ortho

Seed L. Ortho

Seed Non-Halation

Seed Non-Halation Ortho

Standard Extra

Standard Orthoron

Wellington Speedy

Wellington Film

### Class 1 1/2

Lumière Ortho A

Lumière Ortho B

### Class 2

Cramer Medium Iso

Cramer Medium Iso Non-Hala-  
tion

Ilford Rapid Chromatic

Ilford Special Rapid

Imperial Special Rapid

Wellington Iso Speedy

### Class 2 1/2

Barnet Medium

Barnet Ortho Medium

Cramer Anchor

Hammer Fast

Seed 23

Lumière Panchromat

### Class 3

Wellington Landscape

### Class 4

Stanley Commercial

Ilford Chromatic

Ilford Empress

### Class 5

Cramer Commercial

Hammer Slow

Hammer Slow Ortho

Wellington Ortho Process

### Class 8

Cramer Slow Iso

Cramer Slow Iso Non-Hala-  
tion

Ilford Ordinary

### Class 12

Cramer Contrast

Ilford Half-Tone

Seed Process

### Class 100

Lumière Autochrome

# The Round Robin Guild Exposure-Guide For May

COMPILED BY PHIL M. RILEY

UNDER this caption a brief table of exposures will be given in each issue for the guidance of Guild members during the following month. While the figures are indicative only, they will be found approximately accurate for the assumed conditions they have been applied to. If the exposure-times given are not considered imperative, but as suggestions, possibly to be varied slightly at the discretion of the worker, these tables will prove of great benefit to all who use them.

The table below gives the exposures required by the different subjects and plates mentioned during the month of May on any fine day between 10 A.M. and 2 P.M. when the sun is shining brightly and the lens is working at f/8, or U. S. No. 4.

Double the exposure if the sun is obscured but the light is fairly bright, or if f/11, U. S. No. 8 is used. Treble it when the light is rather dull, and from 6 to 7 A.M. and 5 to 6 P.M. Increase it four times when there are heavy clouds and very dull light, or if f/16, U. S. No. 16, is used. For f/5.6, U. S. No. 2, give half. From 9 to 10 A.M. and 2 to 3 P.M. increase the exposure one-fourth. From 8 to 9 A.M. and 3 to 4 P.M. increase it one-half. From 7 to 8 A.M. and 4 to 5 P.M. increase it two and one-half times. From 5 to 6 A.M. and 6 to 7 P.M. increase it six times.

SUBJECTS	PLATES (List on Opposite Page)											
	Class $\frac{1}{2}$	Class 1	Class $\frac{1}{3}\frac{1}{4}$	Class $\frac{1}{3}\frac{1}{2}$	Class 2	Class $\frac{2}{3}\frac{1}{2}$	Class 4	Class 5	Class 6	Class 8	Class 12	Class 100
Studies of sky and fleecy clouds .....	1 1600	1 800	1 640	1 512	1 400	1 320	1 200	1 160	1 128	1 100	1 64	1 8
Open views of sea and sky; very distant landscapes; studies of rather heavy clouds .....	1 800	1 400	1 320	1 256	1 200	1 160	1 100	1 80	1 64	1 50	1 32	1 4
Open landscapes without foreground; open beach, harbor and shipping scenes; yachts under sail; very light-colored objects; studies of dark clouds	1 400	1 200	1 160	1 128	1 100	1 80	1 50	1 40	1 32	1 25	1 16	1 2
Average landscapes with light foreground; river-scenes; figure-studies in the open; light-colored buildings and monuments; wet street-scenes .....	1 200	1 100	1 80	1 64	1 50	1 40	1 25	1 20	1 16	1 12	1 8	1
Landscapes with medium foreground; landscapes in fog or mist; buildings showing both sunny and shady sides; well-lighted street-scenes; persons, animals and moving-objects at least thirty feet away .....	1 100	1 50	1 40	1 32	1 25	1 20	1 12	1 10	1 8	1 6	1 4	2
Landscapes with heavy foreground; buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red brick buildings and other dark objects; groups outdoors .....	1 50	1 25	1 20	1 16	1 12	1 10	1 6	1 5	1 4	1 3	1 2	4
Portraits outdoors in the shade; very dark near objects .....	1 25	1 12	1 10	1 8	1 6	1 5	1 3	2 5	1 2	2 3	1	8
Badly-lighted river-banks, ravines, glades and under the trees .....	1 12	1 6	1 5	1 4	1 3	2 5	2 3	4 5	1	1 1/3	2	16
Average indoor portraits in well-lighted room, light surroundings, big window and white reflector .....	1/4	1 2	3 5	3 4	1	1 1/5	2	2 2 5	3	4	6	48

In order to make the exposures as accurate as possible after the final multiplications, all fractions accompanying whole numbers have been allowed to remain in this table, except when the whole numbers were so large that fractions might be disregarded as negligible. In such cases approximate figures have been given. Shutters will not always give the exact exposure required, but the nearest speed may be used if it is approximately correct. When the nearest speed is too short open the diaphragm a little; when too long, close it a little. Let the exposure be a little too long rather than too short, and the more contrast there is in the subject the more it may be over-timed. Over-exposure, unless excessive, can be controlled in development, but under-exposure will not give a satisfactory negative.

# THE CRUCIBLE

A MONTHLY DIGEST OF FACTS FOR PRACTICAL WORKERS

*With Reviews of Foreign Progress and Investigation*

Conducted by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department  
Address all such communications to Phil M. Riley, 383 Boylston Street, Boston

## Shutters in Damp Weather

USERS of focal-plane and roller-blind shutters will do well to remember that in very damp weather the full marked speeds may not be attained, owing to swelling or stickiness of the parts, thus causing friction. Although the motive-force in any shutter cannot be very great, the rapidity of movement must be very high, and so very slight friction will considerably retard the speed of operation. In damp weather it is often necessary to set the shutter for a higher speed than is really wanted. An idea of the tremendous speed which a small motive-force must produce, states *The Amateur Photographer*, can be gained when one stops to consider that in giving one one-thousandth second with a focal-plane shutter or one two-hundredth with an inter-lens shutter the movement is at the rate of approximately twenty feet per second; or, in other words, the rollers of a focal-plane shutter must revolve at the rate of about fourteen thousand times per minute.

## Sodium Bisulphite Instead of Acetic Acid

SOME photographers who object to the fumes of acetic acid in the fixing-bath have at different times asked for a substitute. In the last issue of *Portrait* the Ansco Company suggests that sodium bisulphite can be safely substituted for acetic acid. The bath should be compounded as follows:

Water .....	.64 ounces
Hypo .....	.16 "

Then add a hardening-solution as follows:

Water .....	5 ounces
Sodium bisulphite .....	1 ounce
Alum .....	$\frac{1}{2}$ "

This bath is also excellent for plates or films, so that one bath may be used for both positives and negatives.

## Testing the Permanence of Prints

DR. BAERELAND, a widely-recognized authority on the permanence of photographic papers, finds that the old mercury test is not altogether satisfactory, because some prints are attacked by it which are, under all other conditions, quite stable. A much more satisfactory method invented and widely advocated by him as a fair test for all photographic papers, including platinum, is the use of ammonium hydro-

sulphide. A test is made in the following manner: Procure a round vessel, such as a wide and high jar, which can be thoroughly covered with a piece of glass. The prints to be tested are cut in half, one portion being laid aside for comparison later, and the other being placed vertically against the wall of the jar, the picture-side facing the center. In the center of the vessel place an ordinary cup containing a solution of ammonium hydro-sulphide; then cover the top of the jar and leave everything in this condition for at least two hours. At the expiration of this time remove the prints from the jar and compare with the halves that have been put aside for this purpose. While the paper-stock will, naturally, have grown a little yellow from the influence of the chemical combination, the image itself will have lost nothing of its former tones or brilliancy, if it be of a permanent nature.

## Keeping-Quality of Orthochromatic Plates

R. JAMES WALLACE, director of the Research-Laboratory of the G. Cramer Dry-Plate Co., is authority for the statement that an iso or ortho plate, or, generally speaking, any panchromatic plate, will usually keep its orthochromatic quality for the length of time that the film will give a clear picture; that is to say, the orthochromatic quality may still obtain with the film after a given time, but would be so buried in fog that the plate would be unusable. In commercial work the iso, ortho and panchromatic have a maximum keeping-guaranty of six months, after which period of time the plate begins at the edges to show signs of fog. This fog may be distinctly seen even before development as a peculiar surface iridescence. It is not caused by light, but by the formation of an allotropic form of silver bromide which is developable without the impact of light. It might be stated that in all high-speed plates this allotropic form of silver bromide is present, and the higher the speed of the plate the greater amount of this developable allotrope. This is strongly in evidence in the case of the Lumière Sigma plate, which is the plate of highest speed manufactured, and which shows, consequently, double the so-called "chemical fog" shown by any other high-speed plate.

The dye, incorporated in the film during the course of manufacture, forms a definite chemical combination with the silver and, as nearly all iso, ortho and panchromatic emulsions are formed in the so-called ammonia process — which in

the course of preparation calls for excess of ammonia — the plates consequently have a much shorter keeping-period than do plates which are ripened merely by heat alone.

The Eastman Kodak Co. states that the keeping-quality of the Standard Ortho-nom is from one and one-half to two years.

### A Stringless Package

THE usual way to do up a flat package is to turn over the two corners of the wrapping-paper at each end and then the projecting ends close to the contents. In order to keep these strongly in position, a piece of string or tape is tied snugly around the package, forming a cross on each side.

Now there is a way to do up such a package firmly and securely without the aid of string, tape or anything else, and without an adhesive of any kind. This method has been used by the editor for many years. He picked it up in Europe in the early seventies.

The object, which must be flat and not exceed one-fourth inch in thickness, is enclosed in a sheet of wrapping-paper, but the ends which project over the contents, say, from one to two inches, are not disposed of in the manner described above. They are folded or tucked in. While the package is held firmly between the body and the edge of counter or table, one side of the end uppermost is evenly tucked inside. The dotted lines of diagram No. 1 indicate its position inside the package.



No. 1



No. 2

The other projecting end is folded over toward the body and the edge sharply creased. It is then tucked inside and thus brought flat and close to its fellow. The thumb and forefinger are then passed along the outside edge to ensure close contact of both edges. The package is now reversed and the other end treated in exactly the same way. The dotted lines of diagram No. 2 indicate the appearance of the package with the position of the ends as they are tucked out of sight. The package is now virtually open at both ends and permits inspection by the post-office officials in case it is sent by mail. If desired, the outside flap may be pasted closely to the body of the wrapper.

### Lantern-Slide Stage-Scenery

EUGENE FREY, a young painter and an electrical engineer of Paris, has the idea of reproducing shadows in color by the use of powerful magic-lanterns lighted by electricity. The pictures thus reproduced are first drawn in black and white under a microscope on a card a foot in length. They are then made into lantern-slides, which are colored minutely in transparent aniline dyes. As the projected picture is enlarged eight thousand or ten thousand times its original size, the work of drawing and coloring has to be that of a skilful and painstaking artist. For the most part the coloring is the work of the inventor. Instead of placing the lantern in front of the screen, Mr. Frey places all the apparatus behind a white curtain one hundred and twenty feet in length, which is well saturated in a glycerine preparation that makes it translucent. He throws the background on this curtain, while all the arrangement of scenery in the foreground, where the action takes place, remains as usual.

If the scene demands a sunrise, a sunset, a storm or a conflagration, these changes are produced by a series of colored projections. Thus, if we have a forest with a lake, we see this landscape in the morning, in the middle of the day, at dusk and at night. The principal subject, the landscape, during the daytime remains always the same, but by other projections thrown on the screen the rosy tints of the morning or the violet colors of the dusk or the shadows of night are produced. Each of these variations of color is obtained by a separately-colored slide, thrown on the principal slide in such a manner as to give the desired effect and arranged with such exactitude as to reproduce the objects on the screen without changing their position in the least. In the scene that represents the burning of Rome in "Quo Vadis"—a new opera in Paris—seven lanterns are employed at the same time. In the foreground, on a terrace, is Nero with his lyre, surrounded by the dancers and the feast-makers; in the background Rome stretches away, built on the hills; far in the distance a fire breaks out and smoke begins to rise, then the fire creeps nearer and nearer as one building after another catches fire, and clouds of smoke rise as the city is consumed in flames. The effect is striking; the color of the flames taking on a natural yellowish tone as they rise in clouds of smoke. This smoke and flame effect is produced by films of clouds painted in flame-colors and adjusted on wheels, which turn and raise the films, giving the effects desired. In the last act of "Tannhäuser" the grotto of Venus is reproduced at the desired moment without the noise of the shifting of the scenery, while the various gradations between dusk and dawn are effectively shown. In "Mytil," another new Parisian opera, the virgin condemned to death is changed into a lily by the use of the lantern slide.—*Harper's Weekly*.

## OUR ILLUSTRATIONS

Edited by PHIL M. RILEY

ONE of the most superb subjects of its kind which it has been our good fortune to see is "A Young Rustic," by Joseph Thibault, shown upon the cover this month. It is charming in both composition and technique, possessing those qualities of bigness, beauty and human appeal so necessary in a successful cover-design. Although the background is particularly appropriate, yet it does not intrude because of the strong concentration of light upon the figure. No data are available.

It is our privilege this month to show a few more English and European subjects so that our readers may see something of the better class of photography abroad. For the plates credited to Dührkoop, Sury, Evans, Rabadan, Hofmeister, Zenker and Whitehead we are indebted to the publishers of "Photograms of the Year 1900."

"A Portrait Head" is in R. Dührkoop's usual forceful style; striking and attractive. There is good modeling of the features in spite of very strong concentrated light. The lines of the neck, poise of the head and contour of the face all seem characteristic of the sturdy German type. Data: 18 x 24 Tourist camera; Busch lens, f/4.5, stop 2; February, 11.30 A.M., in a room without skylight; 8 seconds' exposure; Seed plate; Edinol developer; Trapp & Munch Matt-Albumia print.

An interesting bit of impressionism is found in J. Sury's "In the Woods." Calmness and repose are the dominant notes. The trees seem little more than silhouettes, but as those in the distance are smaller and less black, and the low sun is very bright, the planes are fairly well separated. Data: Gaumont camera 9 x 12; Anachromatique lens, 150 mm. focus, f/1.10; Jaune light-filter, coefficient 4; August, 4 P.M.; 16 seconds' exposure; Ortho plate; pyrogallol developer; gum-bichromate print; paper prepared by the author; enlargement from 9 x 12 to 18 x 24.

Silence, solemnity and majesty are all felt in "Dirge in Woods," by Frederick H. Evans. This is due, for the most part, to the symmetry of the giant trees and the emphatic repetition of their vertical lines, as well as the low-tone harmony of the whole picture. Mr. Evans advises us that the original negative is destroyed and that the present platinotype print was taken from a 10 x 12 enlarged negative made from a 4 1/4 x 6 1/2 platinotype print.

Although a commonplace subject, "A Dusty Road," by A. Rabadan is interesting, and illustrates the effectiveness of sunlight and dust in a picture, when both are well rendered. The point of interest is well placed, although we believe a little could be sacrificed from the bottom

of the print. Data: 13 x 18 Offield camera; French single lens, 11-inch focus, stop f/10; July, 10 A.M., good light; 1/4-second exposure; Tongla (violet) extra rapid plate; glicin developer; matt celoidin print.

Thomas Hofmeister's "Cypresenhain" is from an untouched negative, yet it displays all those qualities of direct forcefulness and strength of handling which are characteristic of his more carefully-prepared prints representing a large amount of local work. The contrasted effects of sunlight and shadow are quite as striking as they are interesting. Data: Görlitz camera; Busch's Aplanet lens; August, 2 P.M., 1/2 sun; 1 second exposure; pyro developer; albumen print; original negative.

On pages 206 and 208 are described the details of making the panoramic subjects by Fred D. Maisch.

A print which combines decorative treatment with strength is "Summer-Time," by W. Zenker. The overhanging tree and the transparent shadows have done much for the beauty of the subject, and the contrast of light and welcome shade is well rendered. Downhill perspective is seen beyond the prominent line of sight. Data: 9 x 12 cm. camera; Collinear lens, 13 1/2 cm. focus; August; Hauff Feavin plate; gum-print.

Excellent, indeed, is J. M. Whitehead's "The Moorland Cottage." The sunset and cloud-effect is superb, while the low, flat light, the wide expanse of the moors and, above all, the prominence of those two solitary trees combine to create the utmost feeling of loneliness. Data: Aye Ready camera, 1/2 plate; Voigtländer lens, f/16; August, after sunset; Barnet S. R. Isochromatic plate; Pyro-soda developer; C. C. Platinotype print. Landscape taken after sunset as late as it was possible to see to focus. Combined with sky-negative and enlarged to 8 x 10.

In his article on page 214 of this issue Chester A. Reed describes his successful methods of making bird-photographs.

Very dainty and Japanesque is "Decorative Landscape," by John F. Jones. It would make a delightful panel for a photographic screen or other decorative purpose. Chief interest centers in the blossoms and sweeping lines of the branches, but the water and distant shore-line serve to fill the lower left-hand space. Camerists will find many pictorial possibilities in photographing spring blossoms, and the opportunity to do so should be embraced this month. Data: 5 x 7 Empire State camera; Anastigmat lens, 12-inch focus, stop 8; May, 10.15 A.M., dull haze; 1/10 second exposure; Standard Orthomont plate; pyro developer, factor 12; Royal Bromide enlargement, re-developed.

## The Monthly Competition

Many and varied were the entries in "My Favorite Photograph" competition and not a little merriment was furnished the judges by the fact that, in spite of the subject, many contestants sent from two to six prints each.

First prize was awarded to E. F. Sornberger for "The Thunderstorm." The reproduction is disappointing, because a suitable print was not available, but to the eye the original is truly majestic and the distant rain falling from the mighty cloud remarkable. Good material and excellent spacing, as well as good photography, combine to produce an exceptional subject. Dr. Sornberger prefers it because it represents, to his mind, nature's grandest mood—the thunderstorm. Data: Premo, R. R. lens, f/8; Ischrom ray-filter; July, 4:30 P.M., bright sun,  $\frac{1}{2}$  second exposure; Cramer Iso. plate, rodinol developer. The original was on a 4 x 5 plate, printed on Velox, enlarged with a 5 x 7 camera and printed on Royal Velox.

A. B. Hargett in the second-prize print, "Portrait of a Boy," has succeeded excellently in handling whites; they have texture. There is good spacing and modeling of the face, but lack of life in the eyes. Data: Portrait-lens, 18-inch focus, stop f/6; window light; 2 seconds exposure; Hammer Special plate; pyro developer; platinum print.

The third-prize print, "A Midsummer Dream," by Joseph Brown, is a delightful effect of sunlight through the trees. One must see the original fully to appreciate it, being one of those subjects to which the half-tone process cannot do justice. In the reproduction there is a decided gain in spotty contrast and loss of mellow softness. This is due partly to the loss of color, the original being brown in tone. Data: 6 $\frac{1}{2}$  x 8 $\frac{1}{2}$  Century View-camera; P. & S. lens, 16-inch focus, stop f/12; June, 4 P.M., bright light;  $\frac{1}{2}$  second exposure; Seed 26x plate; pyro developer; W. & C. platinum print.

Of the honorable-mention prints "In Mexico," by Jean B. Moreau, and "In the Storm," by Lizzie M. Peabody, are particularly fortunate. The former, although of necessity due largely to chance, is a very happy arrangement, while the latter shows convincingly that motion in surf is better rendered by a moderate exposure than by one which is exceedingly fast. In the present instance one truly feels the rush of the waves. Had they been "frozen" by a very high-speed exposure the effect would have been lost.

"In Mexico," Data: Goerz-Anschutz camera; Goerz Dagor lens f/6.8; 1/30 second exposure; Lumière Ortho A plate; enlargement on Royal Bromide, re-developed.

"In the Storm." Data: 3A Folding Brownie camera; meniscus achromatic lens; January, dull light; N. C. Eastman film; Eastman M. Q. developer; printed by kerosene lamp-light.

Prominent in the group of honorable mention prints is "Portrait of G. A. Brandt," by J. Will Palmer. It is a characteristic likeness of the

genial secretary of the Postal Photographic Club, as well as an excellent piece of photographic work. Breadth and roundness are its chief qualities. Data: Chapman Portrait-lens, 11-inch focus, used full open; July, 2:30 P.M., cottage window, southern exposure; 10 seconds exposure; Standard Imperial Portrait plate, edmol-hydroquinone developer; Kallitype print on Strathmore Cream Detail paper.

Oswald Rothmaler's "Abend-Stimmung" is a charming subject with superb atmospheric effect. Here again the prominent line of sight aids the downhill effect while its irregularity gives variety and is very decorative. No little part is played by the appropriate clouds. Data: Rapid Rectilinear lens, 6 $\frac{1}{2}$ -inch focus; stop f/8; August, 5:30 P.M.; clear evening with the late sun; 1-5 second exposure; Eastman N. C. film; metol-hydro developer; Royal Nepera (India tint), re-developed for the sepia tone.

A low-tone subject presenting a scene which always appeals to everybody is found in "The Path through the Pines," by D. Edward Jones. Data: 3A Kodak; Goerz lens, Series IV, set 100 feet by scale; stop 32; June, 3 P.M., slightly dull light, but strong, camera pointing nearly to sun; 6 seconds exposure; Eastman film; Seed's M. Q. developer; enlargement on Monox Bromide Paper, re-developed with Velox re-developer.

A very common atmospheric effect, seldom made use of in pictorial photography, is seen in Samuel S. Ludlum's "Rising Mists." The treatment is excellent and, combined with a beautiful sky, the effect is delightful. One might, perhaps, wish for a trifle more space between the prominent tree and the left-hand margin, although this is a matter of personal feeling. Data: stop 32; May, 6 A.M., diffused light; 2 seconds exposure; Standard Orthoronon plate; metol-hydro developer; Portrait Velox print toned sepia.

## How Postage-Stamps Disappear

WHILE an official of the Boston Sanitary Department was inspecting a place where refuse is dumped he discovered a number of rag-pickers diligently searching a mass of empty envelopes. Watching their operations he discovered that once in awhile one of the searchers would extract something, apparently of value. It was found that these were postage-stamps, which had originally been placed in the envelopes by the senders and neglected to be extracted by the recipients.

This helps to explain many cases in which answers were solicited but none received, the disappointment being caused by the return-postage not having been properly placed in the envelope. The best way is to moisten a small place in the center of the stamp and attach it to an upper corner of the front page of the letter; or, if there are several stamps, they can best of all be safely enclosed in paraffine paper, which prevents them from sticking to each other or to the letter.

## NOTES AND NEWS

Announcements and Reports of Club and Association Meetings, Exhibitions and Conventions  
are solicited for publication

### The New England Convention

WHILE fully recognizing the valuable work done by past officers of the Photographer's Association of New England, PHOTO-ERA wants to impress upon every member of that body the fact that in Mr. W. F. Oliver, the association has a president who is surprisingly well-equipped for the position. Though extremely modest, he is eminently clear-sighted, energetic, resourceful, devoted, and—honest. He will make good.

The quiet but searching and systematic investigation that has been, and is being, conducted by the officers of the New England Association bids fair to result in one of the most successful and comprehensive Conventions ever held. This is no idle boast.

From the first, it has been the policy of the board to consult every interest for the purpose of originating a program as broad as the name of the organization would imply. Although positive announcements have not yet appeared, it is expected that the features will include Mr. Ryland W. Phillips, with his now famous illustrated talk, "With Other Photographers"; Mr. J. Hammer Croughton's illustrated art-lectures and personal criticisms, and C. H. Claudy's lecture on the advertising-problem.

More important attractions are contemplated, and various committees are busy working out details to make the whole affair exceptionally educative and entertaining. Particular attention is being given to the arrangement of the program and the display of pictures.

In its appeal for exhibits, the 1910 can hardly fail to meet every personal inclination. The Grand Prize, open to the world, will be a trophy of far greater intrinsic value than has ever been previously offered; the same liberality will prevail in the other classes, open to members only—Portrait, Genre and Landscape. In addition, a decided innovation is offered by the "State" Class. In this, two prizes are offered for each State, competition for each two being open to the members from one State, only.

The complimentary class will maintain as in the past and receive the utmost consideration in hanging. For the first time, this year every exhibitor—either in the competitive or the complimentary class—will receive a "Certificate of Acknowledgment," suitable for framing, showing that the exhibitor's work was included.

Complete details are being forwarded to New England photographers at frequent intervals and, if you are not receiving them, you should immediately forward your name and address, stating whether you are proprietor or employee, to Mr. George H. Hastings, Secretary, 37 Merrimack Street, Haverhill, Mass.

### Do You See the Point?

THIS is the title of a picture representing a duel between two knights of the black art. The victorious swordsman has pierced the breast of his adversary, and the point of the weapon protrudes several inches below his left shoulder-blade. This is the point of the circular embellished by this picture which exhorts the New England photographers to take an active interest in the Thirteenth Annual Convention of the P. A. of N. E., at Boston, July 26, 27, 28, 1910. The contents of the circular issued by President Oliver is very pointed as well as to the point, and we are convinced that every reader of the circular will see the point, too. The point is that the N. E. convention, this year, under the leadership of so active, energetic and resourceful a president as Mr. Oliver, is bound to be an emphatic success. President Oliver will be heard from several times before the end of July and nobody will be disappointed.

### Dr. John Nicol

THE sad news of the death, March 13, 1910, of Dr. John Nicol, a pioneer of photography and the senior member of the editorial staff of *American Photography*, reached us after our April issue had been printed. The editor of PHOTO-ERA is one of those who enjoyed the acquaintance and friendship of the late Dr. Nicol, who by his thorough knowledge of his beloved art-science, his sterling scholarship and lovable character, never failed deeply to impress all who came in touch with him.

### Mr. Anderson to the Fore

PAUL LEWIS ANDERSON, whose work is familiar to readers of PHOTO-ERA, is about to open a studio in East Orange, N. J. Mr. Anderson possesses in high degree those qualities which make for success in photography of the advanced pictorial school, and in his new venture PHOTO-ERA wishes him all success.

### Work of G. R. Ballance

WE understand that Mr. Ballance, who has gained a world-wide reputation through his exquisite photographic interpretations of Swiss and Italian scenery, is about to extend his list of pictorial publications by valuable additions to be obtained in Rothenburg above the Tauber (the subject treated in the February issue of PHOTO-ERA), along the Rhine and in Norway, Egypt, Palestine, Algiers and Spain. Mr. Ballance recently visited the well-known watering-place of Biarritz and the Riviera di Ponente and specimen prints will be reproduced shortly in PHOTO-ERA.

### Toledo Camera Club

On the walls of the Toledo Museum of Art, hang the paintings and water-colors of Venice and the Alhambra by Herbert W. Faulkner. Mr. Faulkner talked to the Toledo Camera Club at its March meeting and it certainly was a delight to hear him. He uses the camera and knows much of its possibilities. His ideas on composition, handling of lights and massing of dark bodies, together with impression and expression of the subject in hand, were very practical and the club received much useful information.

On the night of March 14, the club had a rich treat in the English slides. In gloomy England the photographer will get light-effects that are marvelous. In America, a country of sunshine, the photographer sees more beauty in the dark and sombre subjects. Many writers have noted the above and this set of slides will convince any one that it is true in practice.

The interiors and snow-scenes of this set are startling in their reality. They have successfully photographed bright light-shafts against dark objects and lost none of the detail in the shadows. They are wonderful and certainly worthy of all the praise they received. On the same night, the slides of the New York Camera Club were shown and the two sets furnished one of the best entertainments the club has ever had.

During the past year the club has had two special talks on live subjects, has had the St. Louis Club and the Milwaukee Club lantern-slides, while the Toledo slides have been shown in the above cities. The club has a set of slides that will be loaned to any club wishing them, the usual rules in such cases to prevail.

The club has had prints in the following exhibitions of the past year: Jamestown, N. Y.; Montreal; Wilkes-Barre, Penn.; Buffalo; has eight prints in the Sixth Salon; eight prints reviewed in the "Photograms of the Year 1900," London; and work hung in the Dresden Exhibition. The officers of the American Federation of Photographic Societies were selected from the Toledo Club for the past year, and the Sixth Salon was assembled in the Toledo Museum of Art.

The particular feature of the past year, the outings, has proven more beneficial than had been hoped, and no small part of the interest and results can be traced directly to this particular feature.

### Capitol Camera Club

THE nineteenth annual exhibition of this organization is announced for May 7 to 15 at the Corcoran Gallery of Art. As Mr. Charles E. Fairman, president of the club, is also president of the Postal Photographic Club, the latter organization will cooperate to help maintain the high standard of the Washington exhibitions. Photographers throughout the country have been asked to submit their work before April 6, and present indications are conducive to the idea that the exhibition will be a distinct success.

### Missouri Camera Club

THE Missouri Camera Club of St. Louis has enjoyed an active fall and winter. Establishment in new quarters with greater facilities for the members has resulted in increased interest. The club is now fully equipped with a studio and portrait-camera, dark-room with enlarging-lantern and a stereopticon.

One outing in the fall, including a cross-country tramp, was somewhat marred by unsuitable weather; but the presence of good fellowship compensated in full measure for any lack of photographic results.

Interest in lantern-slide work is on the increase. During the past two months members have enjoyed viewing the work, through exchange of slides, of the Wisconsin and Toledo Clubs. Arrangements have been made for exchange with the Akron Club, and it is hoped to continue the good work through Trinidad, New York and Chicago.

The annual exhibit of the club was on view throughout the week of January 17, and attracted wide-spread attention. The display consisted of ninety-two frames, and was universally conceded to be the best of the five annual exhibits held by the club. Several additions to the membership list have resulted, and more are expected. The Sixth American Salon was held, as in previous years, in the gallery of the Artists' Guild, during the week of March 5, and a continuation of the interest manifested by the public in the past resulted. The club looks forward to an active year, and most cordially repeats its invitation to all fellow-workers to join. The rooms are located in the Euclid Building.

### James H. McCorkle

IT is with regret that we are obliged to record the suicide of James H. McCorkle, of Portland Me., early in February, at his Tide Rock studio, Cape Elizabeth, by taking potassium cyanide. Despondency, due to family troubles, is the cause ascribed. Mr. McCorkle was an enthusiastic photographer, and is best known for his beautiful marine subjects.

### He Has No Show-Case

OUR lively contemporary, Abel's *Photographic Weekly*, recently described a number of excellent ideas on Easter advertising for the professional. It is a good sign that the photographer is awakening to the realization that there are other methods of advertising besides the traditional and apparently indispensable show-case. Mr. W. H. Partridge, of Boston, with his four successful studios, shows that he is wide-awake. Like Garo, Parkinson, Barraud and others, he is a talented painter, besides a skilful photographer. March 23 to 26 inclusive, he held an exhibition of his paintings and foreign photographs at his Home Studio, 90 Westland Avenue, the fashionable residential section of Boston. We are informed that the sale connected therewith was very successful.

## BERLIN LETTER

MAX A. R. BRÜNNER

### Photographic Affairs in Germany

LIKE in England and the United States of America, photography has become very popular in the German Empire both for pleasure as well as for numerous business, industrial and scientific purposes. The camera is much used by the educated people and although the photographic industries only partly owe their origin to the general spread of this art, still their remarkable development is greatly due to the same. It must also be admitted that the progress made in reproduction processes is responsible for this speedy development. In Germany the mechanical reproduction has, owing to its origin and fundamental conditions to photography supplanted the old-fashioned reproduction process by hand almost everywhere. This fact and the general popular use of the camera have created German photographic industries.

Things are different to-day than they were in the past century. About thirty years ago the portrait was the object aimed at by professionals and amateurs and the word "photographer" meant always a maker of portraits. It is true that this branch and its mechanical application are still an important occupation, and the same can be said of artistic and mechanical work; but they have given room for other applications of photography which have now reached a high standard. Old traditions have receded more and more and especially professionals are in a peculiar position now. Yielding to new conditions some of the old representatives of the portrait-art have gradually disappeared from view; others are struggling for existence, while a few have managed to attain high perfection in their work and to comply with the changed taste of the public. Thus most of the veteran portraitists are not in an enviable position. Nor has photography been spared by the tendency of the age which has brought larger industries to the front at the expense of the smaller ones, wherever the conditions for it were favorable. The average portrait has much decreased in value and the simplification of this branch has gone hand in hand with other changes which latter have proved remarkable technical improvements and, as such, are to be welcomed. On the other hand the little portrait-studios have been pushed aside by large industrial concerns provided with the most modern appliances and founded with a view to make pictures in masses. There is scarcely a dry-goods store of some size in Germany which has not its "Atelier," and in spite of a special tax for these stores, they do a big business much to the displeasure of the average portrait-maker with his modest studio. Their prices are remarkably low, although the quality is not nearly so high as for other pictures, yet good enough, in view

of the little charge, for the larger part of the public. A real danger to the professional portraits are the large enlargement concerns in the principal cities who, in a typical American way, try to secure the trade through sensational advertisements and ridiculously low prices. Many offer their services for nothing, only to become known and to be recommended by the public. The league of German photographic clubs and professional societies constantly are urging the public, by means of advertisements and posters, to give orders to such concerns and compare them with those made by an honest and modest photographer. Still it is hard to convince the public.

Everywhere efforts for high perfection are made and artistic portraiture originated from this movement and its productions really deserve general interest. This pleasing process has been stimulated by the action of prominent amateurs. Those who cultivated really artistic photography as a hobby gave their ideas free scope and showed to the professionals how to attain fine results. If now our professional has raised the standard of portraiture quite considerably, his thanks are due to the amateur. Visitors to the famous Dresden Exposition will have been astonished by the fine work of the amateur, and while the professional also showed remarkable pictures, these would have been impossible without the progressive efforts of the amateurs.

Apropos of photographic industries, we all know that Germany is famous for its high standard in chemistry, and, therefore, the manufacture of photographic chemicals, plates and papers is an established success. Factories making a specialty of such preparations are steadily growing in size and number, and, while formerly almost only raw material was made here, now photographic solutions, tablets, powders, etc., ready for use, are turned out in enormous quantities, much to the great convenience of the amateur photographers. The German dry-plate has become very popular, and there are few consumers who would buy an imported plate. On the other hand, the export of German dry-plates is steadily increasing, the chief consumers being Norway, Russia, Sweden, Austria and the smaller European states, also, to some extent, France, Great Britain and America. Special progress has been made with films which, until five to six years ago, were imported chiefly from the United States. The same is true of German color-sensitive plates, the great commercial success of which is due to the experimental and research work which has been conducted on a large scale in our numerous chemical laboratories. It is not possible to give accurate statistics regarding the sales in the German Empire of domestic photographic products, but it is safe to say that they amount to over forty million dollars yearly. On the whole, the photographic industries occupy an important place among the industries of the Empire, and have attained an honorable and, perhaps, leading position in the world's market.

## Art-Criticism ad Absurdum

THE manner in which modern slang has forced its way into respectable conversation and writings is something appalling. Mr. William Howe Downes, the staid art-editor of the Boston *Transcript*, and chairman of the PHOTO-ERA Committee of Awards, jocosely declares that the day is not far distant when art-criticism will be couched in terms of the degraded vernacular. To emphasize his prediction he gives a number of imaginary opinions expressed in the bold, unfeigned language of the art-critic of the future. Here are a few specimens:

"No. 23. The Angelus, by Jean François Millet. The hayseeds who are indulging in a pipe-dream in this proposition are a daffy bunch. Millet was usually O. K. on this Farmer Corn-tossel stunt; but there is nothing doing here, and these gazabos are stung for keeps."

"No. 44. Portrait of a Man, by Ingres. The artist has got wise to this highbrow all-right-all-right. In fact, Ingres generally gets down to brass tacks P. D. Q. He is a dead game sport."

"No. 55. Spanish Marriage, by Fortuny. This is a crackerjack picture, sure thing, showing a dude and a peacheroino being hitched. Fortuny is on the job every time."

"No. 98. The Horse Fair, by Rosa Bonheur. This is going some. Me for Rosa. She is hot stuff."

"No. 43. Nocturne, Opus XX, by Whistler. Now what do you know about that? Jimmy is off his trolley this trip. Nothing but hot air."

"No. 11. The Old Beau, by Ludwig Knaus. An up-to-date fathead in his glad rags, feeling very chesty."

## A High-Priced Publication

WE have, once before, criticized the greed of the publisher of a certain small brochure on portrait-lighting. He has the audacity to ask \$1.60 for these forty-two pages, which include a few, though excellent, illustrations. 50 cents would be a fair price, but it is advertised at the stated extortionate price.

Members of the craft coveting a copy of this pamphlet should remember that it is better economy to pay a little more and procure a work which is a thousandfold more valuable. We are glad to see that several of our contemporaries have discontinued to urge the sale of this booklet.

## Jamestown Camera Club

THE third annual exhibition of this club was held from March 9 to 12 at the club rooms. One hundred and seventy prints were shown, and awards were made to Clare J. Crary, Albro H. Hooper, Miles C. Nichols and Alexander Parsons, all members of the club. Awards in the general class were made to C. F. Bartlett, Miles C. Nichols, A. M. Bryson, J. M. Cushman, John F. Jones, Charles L. Peck and R. S. Kauffman. So many prominent names are shown by the catalog that the exhibition could not have been otherwise than noteworthy.

## A Photographic Feat

ALL readers of the Hearst newspapers are well acquainted with the successful camera achievements of "Dick" Sears, chief staff photographer for the *Boston American*, while to those who attend ball games, races and athletic meets his ever-smiling face is also familiar. High-speed work, particularly that which can result only from the utmost intrepidity, is his specialty, and in this field few newspaper men in America are his equal. Mr. Sears's latest "stunt," although calling for little daring, is of much interest, not only because it is new in the annals of photography, but also as showing what one can accomplish by a thorough understanding of one's equipment and materials.

In the presence of a committee of six persons, including Orrin Champlain, the well-known Boston photographer, Mr. Sears was securely blindfolded; after which, still watched constantly by the committee, he set up his camera, loaded his holders, posed the model, focused, made the exposure, developed the plate and took a print from the negative. The result, a successful and pleasing portrait of Miss Florence Martin, of "The Midnight Sons" company, was reproduced recently in the *Boston American*.

## American Camerists in Europe

IT is generally conceded that this is going to be an active and prosperous photographic year. Also, a larger number of American pictorialists will be found in Europe, this summer, than for many years. The wise and experienced traveler, however, makes hay when the sun shines best for him, and that is a little out of the regular season. For this reason our friend, Mr. William H. Phillips, the well-known American pictorialist, departed for foreign shores early last January. By the middle of March he had secured a harvest of successful exposures in Spain, having visited, in order, Barcelona, Burgos, Valladolid, Zamora, Segovia, Salamanca, Madrid, Toledo, Cordova, Granada, Ronda, Seville and Cadiz.

## Photographischer Abreiss-Kalender, 1910

THIS is the third year of the Photographic "Tear-Off" Calendar published by Wilhelm Knapp, of Halle, a. S., Germany. This highly useful novelty is in the form of a pad, 7 x 11 inches, and can be hung on the wall. Each leaf is embellished with an admirable reproduction of some attractive photograph — portrait, genre, animal, landscape or marine — below which is printed a technical formula, hint or table. The typography and general artistic appearance is above reproach. Though printed in German, this calendar appeals to the intelligence and taste of every photographer — it speaks a universal language. The price is absurdly low — Reichsmarks, 2.60, including postage, or 62 cents. It can be ordered direct from the publisher, and we strongly advise our readers to procure a copy.

## BOOK-REVIEWS

*Books reviewed in this magazine, or any others our readers may desire, will be furnished by us at the lowest market-prices.*

**BOSNIA AND HERZEGOVINA — SOME WAYSIDE WANDERINGS.** By Maude M. Holbach. Illustrated with forty-eight half-tones from original photographs by O. Holbach. 243 pages. Price, \$1.50, net; postage, 15 cents. John Lane Company, New York.

In shaping his itinerary for the season close at hand the American tourist will, doubtless, include Oberammergau with its decennial Passion Play. In that case he should try to arrange an excursion into the less-frequented Slav country, notably, Bosnia and Herzegovina — lands of green pastures and rushing waters, of wooded hills and forest-clad mountains; primitively pastoral, where shepherds still play upon the flute and shepherdesses wander with distaff in hand, spinning as they guard their flocks, and where the fret and hurry of modern life are unknown. The national dress of the people, strangely artistic, is set off by the pleasing architecture — native and Turkish — and the majestic scenery. The manners and customs of these rude peoples are in striking contrast to those observed in the North. The traveler will experience new sensations in passing through these new Austrian possessions; and as for the camerist — he will imagine that all the world's pictorial wealth is set down in little Bosnia. That this is no hyperbole is proved by Mr. Holbach's exquisite photographs — than which a finer series never adorned a travel-book. They are not hasty snap-shots, but well-composed pictures by a skilled camerist.

The author has made good use of her rich and beautiful material — born of war, conquest and oppression. Her thrilling recital of the nation's woes is blended with charming descriptions of the scenes that gladden the eye and stir the imagination. Whether the reader journey or not, he will find Maude Holbach's volume delightful and profitable reading.

**PRACTICAL SUGGESTIONS REGARDING THE SELECTION AND USE OF A PHOTOGRAPHIC EQUIPMENT.** By Austin K. Hanks. Illustrations by the author. Size of volume, 7 x 9. 98 pages. Price, cloth, \$1.00. East Orange, N. J., Austin K. Hanks.

This work is from the pen of an experienced, practical photographer and tells the story of photography for the amateur and professional in the clearest possible manner. The lessons are supported by excellent reproductions accompanied by data similar to those which appear, every month, in "Our Illustrations" of PHOTO-ERA. In recommending lenses, apparatus, plates, etc., the author is decidedly in favor of Bausch & Lomb Zeiss-Tessar and Zeiss-Protar

lenses, in their several series, Graflex and Kodak cameras, Eastman N. C. roll-film, Seed Ortho and Standard Orthonon plates. The excellent illustrations shown fully justify Mr. Hanks's predilection in favor of these products. The work is comprehensive in that it covers all the work the amateur is likely to undertake; viz., genre, architecture, interiors, marine, landscape, telephoto and high-speed work. The instructions are exceptionally clear, brief and trustworthy; and it would seem almost impossible for a beginner to go astray.

**ENCYKLOPÄDIE DER PHOTOGRAFIE, Die Röntgenographie in ihrem photographischen Teil.** Von Dr. Lüppo-Cramer. Heft 67. Price: Reichmarks, 4.80. Halle, a. S.: Wilhelm Knapp.

Another valuable addition to Knapp's Photographic Encyclopædia is X-Ray Photography, which the author, Dr. Lüppo-Cramer, is pleased to call "Röntgenographie," in honor of the discoverer. The author treats the subject from a practical photographic viewpoint and analyzes the photo-chemical changes which the Röntgen ray produces in the sensitive plate. The little volume will greatly interest photographers, surgeons, physicians and all others who make radiographs. The numerous illustrations greatly help to explain the text.

**IN WILDEST AFRICA,** by Peter MacQueen, F. R. G. S. L. C. Page & Co., Boston. 8vo., cloth. Price, \$2.50.

In this, the latest of Mr. MacQueen's well-known works, is presented the record of a hunting and exploration-trip through Uganda, Victoria, Nyanza, the Kilimanjaro region and British East Africa, with an account of an ascent of the snow-fields of Mount Kibo, in East Central Africa, and a description of the various native tribes. Accompanying the text are sixty-four plates from original photographs taken chiefly by the author's traveling-companion, Peter Dutkewitz. It is a work of absorbing interest from cover to cover, presenting a vivid, readable picture of Africa as it is today; and while the wilds of this vast continent are given their share of consideration, the writer describes, as no other has, its many cities familiar to us by name, yet which we really know so little about. We are made to realize as never before the wonderful resources and possibilities of Africa which are likely to be developed as the English and European population increases. Particular interest attaches itself to the book just now because Mr. MacQueen passed through the hunting-country along the line of the Uganda Railway just prior to the arrival of Col. Theodore Roosevelt, when every one was anticipating with the keenest interest and pleasure the visit of our great popular statesman and game-enthusiast.



*A self-made man is often proud of a poor job. Better read PHOTO-ERA and get the advice of experts.*

# WITH THE TRADE

## The Successful Worker

FOR successful photographic work of every description, Wellcome's combined Diary, Exposure-Record and Exposure-Meter is well-nigh indispensable. It contains a wealth of practical, timely and trustworthy information and saves time and materials. Sent postpaid for 50 cents by PHOTO-ERA.

## Kodak at the North Pole

ONE of the most instructive and entertaining publications on the subject of the North Pole is a story with Commander Peary as the central figure, issued by the Eastman Kodak Company, of Rochester, N. Y., in the form of a brochure illustrated with excellent and authentic photographs by Anthony Fiala, Harry Whitney, Robert E. Peary and B. B. Hampton. The pictures are quite varied and show the life and scenery in the Arctic regions, as well as the excellent photographic and keeping-qualities of Kodak supplies used by Arctic explorers. We earnestly recommend that every reader interested in this, one of the greatest discoveries of modern times and which reflects so much credit upon American enterprise, skill and endurance, will procure a copy of "Kodak at the North Pole," sent free by the publishers, before the supply is exhausted.

## Turner-Reich Lenses

THE Eastman Kodak Company has consented to act as trade agent for Turner-Reich anastigmat lenses and in further testimony of its appreciation of the fine qualities of these lenses it will list Century Cameras equipped with them. For the convenience of its customers the Eastman Kodak Company will fill orders for Turner-Reich lenses subject to the usual trade terms, and all lenses so ordered will be sold on approval and ten days' trial according to the usual conditions of sale. Catalog will be sent upon request.

## Ross Lenses

THE Homocentric Series Ross lenses in their different speeds now offer to photographers all the range that can be desired: F/5.6, F/6.3, F/6.8 and F/8. The process photographer, for line, half-tone and three-color work, cannot procure a better lens than the Ross Homocentric Process lens, F/8, with iris diaphragm and slit for odd sizes and shapes of stops, as desired. The studio photographer, who has the Ross Studio-lens, has one with definition, gradation and speed. The Ross Studio-lens most in use for cabinet portraits is the No. 3, 12-inch equivalent focus, 3 1/2-inch diameter, working at a little more than F/3. Write to the American agents, George Murphy, Inc., 57 East Ninth

Street, for further particulars, and ask for one of the new catalogs. This interesting little volume describes fully, as no previous booklet has, the origin and merits of every lens in the Homocentric Series. There are many good examples of lens-work and the text is instructive to any photographer.

## A New German Lens — The Euryplan

PHOTO-ERA has more than once commented on the state of overproduction in the lens-industry. Yet it cannot be denied that there is always room for a new lens which combines extreme merit with moderate cost. If it is issued by a firm of high standing and distributed by houses esteemed for honorable dealing, all the better. Such a lens is the Euryplan lens made by Schulze & Billerbeck, of Berlin, Germany, who have already been favorably mentioned in these pages. It was introduced in England several years ago, by A. E. Staley, of London, and has become a favorite among professional and amateur workers, over there. The sterling merits of the Euryplan lens were recognized at the Dresden International Photographic Exposition, 1909, the jury, headed by Carl Zeiss, awarding it a silver medal.

We are pleased to announce that the well-known and reliable photo-dealers, Ralph Harris & Co., Boston, U. S. A., have just secured the agency for this lens in the United States, and all inquiries for information should be addressed to them. Although the superior excellences of the Euryplan lens have been the subject of favorable comment in the leading text-books on photographic optics and the photographic press throughout Europe, we shall present our own analysis in the next issue of PHOTO-ERA.

## A Guide for Bird-Photographers

THE days will soon be with us when the bird-photographer will be afield or "up a tree," ready to secure pictures of bird-life. As familiarity with the appearance and habits of birds is indispensable, we are glad to recommend "The Bird-Guide," published by Charles K. Reed, Worcester, Mass. More than two hundred land-birds east of the Rockies are here portrayed, accurately and in their various plumage, together with full descriptions of the song, nest and range of each bird. Lovers of the feathered songsters will find this pocket-guide invaluable and trustworthy. It is endorsed by the highest authorities in ornithology. The edition is pocket-size, revised and enlarged, and costs, in black, flexible leather, \$1.00.

*A good advertisement of a hundred words ought to make the reader think five hundred words.*

### The Kodak Competition

THOSE who intend to compete in the next Kodak Advertising-Competition, already announced in these pages, will do well to get some points from the successful prints of the 1909 contest. With this very idea in mind the Eastman Kodak Company has issued a beautifully-printed brochure of the awards, which may be had upon request by writing to the company at Rochester. While every picture in the collection has its uses from an advertising-standpoint, it is our frank opinion that work similar to that produced by Percy de Gaston, Gertrude Kasebier, T. W. Kilmer, George H. Seip, Nellie Coutant, A. W. Lunbeck and Charles Gilbert Shaw really possesses the greatest advertising value, because of their action, human appeal and direct inference. The purely pretty picture has its uses too, but that picture is best which combines beauty and yet tells a direct, appealing story. Of the lot we think the railway-car picture makes the strongest appeal. It has snap and "go" and tells convincingly one of the strongest arguments for the Kodak. Our February issue gave the awards of the 1909 competition in detail.

### A Model Motion-Picture Theatre

As is well known, the business of exhibiting motion-pictures offers opportunities for enormous profits at a relatively small investment, and it is, therefore, not surprising that it is being conducted, to a large extent, by low-minded and mercenary individuals. Efforts have been made by a few independent journals to elevate the business, but they seem to have produced no good results; and yet there are many motion-picture houses where respectability reigns in all the departments. A conspicuous example of this class is B. F. Keith's Bijou Dream, at Boston, which owes its high moral tone to the manager, Josephine Clement, a woman of high ideals, great intellectual force and rare executive ability. The establishment is absolutely clean from cellar to roof; the motion-pictures and stereopticon-views evidence judicious selection; the well-organized staff works with machine-like precision and produces most

admirable results. The laws and regulations governing this class of theatres are observed scrupulously. It is for these reasons that the Bijou Dream is always filled with select and appreciative audiences. Progressive purveyors from far and near are taking notice and doing their utmost to emulate the praiseworthy example set by Boston's Bijou Dream.

### Retouching the Negative

THE best treatise on the subject of retouching in the English language is, unquestionably, the admirable and now standard work "Artistic Retouching," by Clara Weisman, one of the foremost of living experts in the art of retouching. This opinion is held by our leading photographers, including those who believe in but little work on the negative. Miss Weisman's book is comprehensive in its scope, and an indispensable aid to the professional as well as the amateur. It will be sent by the publishers—the St. Louis-Hyatt Photo-Supply Co., St. Louis, Mo.—postpaid, to any address, for \$1.50.

### A Photographic Specialty for Sale

NOR long ago we invited attention to a product which can be successfully handled as a photographic specialty. The article needs no investigation, as its efficiency has been thoroughly established; but as a commercial enterprise it has not been thoroughly exploited. This can be done by an enterprising individual or a photographic supply-house ready to purchase the product with its assets. The sum called for is about \$5,000. The publisher has no interest whatever in this article, but believes that its valuable properties and element of popularity will commend itself to the right persons. For further particulars address Reinora, PHOTO-ERA.

### Stupid Salesmen

WHEN an amateur asks the head salesman of a photographic department if he carries orthochromatic plates and receives a negative answer, while the shelves conspicuously display Cramer Isochromatic plates in sizes up to 8 x 10, the proprietor of the establishment is justified in declining to grant that particular clerk's request or an advance in salary.

## PHOTOGRAPHIC EXHIBITIONS

Information for publication under this heading is solicited

Society or Title	Date	Entries Close	Particulars of
Boston Camera Club Boston, Mass.	May 9-14		John H. Thurston, Sec'y, 50 Bromfield St., Boston, Mass.
Capital Camera Club Washington, D. C.	May 7-15		Wm. R. Adams, Sec'y, 63 Seaton Pl., N. W., Washington, D. C.

# PHOTO-ERA

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Official Organ of the American Federation of Photographic Societies

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Contributions relating to photography in any and all of its branches are solicited and will receive our most careful consideration. While not accepting responsibility for unrequested manuscripts, we will endeavor to return them if not available, provided return-postage is enclosed.

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PORTRAIT  
CHARLES HALLAN



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## Aberration and the Swings

C. H. CLAUDY

THE actual doing of a thing is not always the difficult part. It is the knowledge when to do it, why it is done, how much to do, that takes time, knowledge and practice to acquire. Thus, there is nothing inherently difficult about using a knife on a person and cutting; but one naturally goes to an experienced and well-qualified surgeon for an operation. Wielding a brush and laying on paint is an "art" learned by house-painters in a short time; painting a picture, knowing how much paint to put on, when and where to put it, and when to stop, are things many artists take years to acquire — and some never do. Depressing the keys of a piano so that the instrument produces notes is something any child can manage; mechanism will produce such technique as no Rosenthal ever possessed; but knowing just when, just how hard, just how much to finger the keys — that is quite another matter.

Any one can take photographs. A dollar Brownie, a pressing of the button, an immersion of the film in a certain solution at a certain temperature for a certain time in a tank, a fixing according to directions any small child can follow; an open-and-shut proposition in paper such as blueprint, will produce a photograph, and a good one, with a little practice. But to make a photographic masterpiece, to produce a picture which is truly artistic, takes something more than such elementary knowledge.

Nor do I speak now of knowledge of art — of values, tones, lights and composition. Your pianist has to have technique before he can make music out of notes. Your actor has something more in him than an ability to string words together. Your photographer who has capacity for real pictorial work must know the technique of his art if he is to arrive anywhere with reasonable certainty.

And, to my certain knowledge, many who are artistic to their finger-tips, who have much knowledge of all which goes to make the painting of a picture, who have the capacity to express the idea within them, fail more often than they succeed, because they do not know enough of the technique of photography, the mechanics of their instruments, the optics of their lens, when they tackle the camera and its eye of glass. Wherefore this elementary exposition of certain powers in the hands of him who, with a camera, would produce real pictures.

Spherical aberration is not an unmixed evil, as it is sometimes claimed to be by those to whom scientific perfection is the *Ultima Thule* of lens-making. Spherical aberration is the name given to that fault in a lens which causes it to form an image which, instead of being even, over a flat service — required because glass plates are flat — is dished, curved, concave, in form. Figure 1 illustrates this aberration diagrammatically, and greatly exaggerated.

If the center of the field of a lens of a certain f. value is always out of focus when the edges are in focus, or if the center is always in focus when the edges are other than sharp, it follows that, with such a lens, at that certain opening, it is normally impossible to make a picture entirely sharp all over. To overcome this, those desiring to make pictures which are sharp, top, bottom, sides and center, should either stop their lenses down, thus producing cones of light so small that a cross-section of them appears to the eye as a point (see Diagram 2), or employ an anastigmat lens, in which the spherical aberration, along with many other lens-faults, is to all intents and purposes eliminated over the field the lens is designed to cover.

But this same aberration is most useful in certain kinds of pictorial work. It is made useful by adjustments on the camera — the rising and falling-front and the swinging-backs. If the lens is directly opposite the center of the plate, and the plate is square, the diffusion of focus, when the center is sharply focused, begins at the center and spreads to all the edges equally. If the lens is raised above the center of the plate, this region of diffusion spreads more towards the bottom of the plate (top of the picture) than it does towards the top of the plate (bottom of the picture). If the lens is *below* the center of the plate the reverse is the case — the diffusion spreads more towards the top of the plate (bottom of the picture) and less towards the bottom of the plate (top of the picture). The same effect is had if the lens is shifted to one side or the other of the center (see Diagram 3).

But few plates are square. They are oblong. Consequently, by shifting the reversible back from the upright to the horizontal, or vice versa, we can eliminate much of the "dishing" from either top or bottom or either side, and magnify it on the other dimension. This power to put the center of sharp focus where we will upon the plate, and make the recession of sharp focus spread up, down or to either side at will, is one of two important bits of technical knowledge which the artist with the camera should master thoroughly,

for reasons which should be plain without explanation.

The swing-back, horizontal or perpendicular, should not be used for adjustments of focus without a full understanding of the lens — whether or not it has spherical aberration, or, if having it, whether or not the stopping down of the lens to a certain point will eliminate it. Its first purpose is to rectify slanting lines in the image when the lens is pointed up or down, by bringing the plate perpendicular to the plane of perpendicular lines in whatever is being photographed. The swing-back has, for the pictorialist, much more important functions to perform. It enables him, without the aid of spherical aberration or when using a lens which is in itself rectified in this respect, to bring the point of sharpest focus to one plane upon his plate, and, with the use of the side-swing, to make this plane a point (see Diagram 4).

Obviously, if the degree of spherical aberration is enough in itself to allow all portions of the picture not desired sharp to be of the required degree of softness, the swings need not be used for this purpose. But degrees of spherical aberration differ in lenses according to focus and according to make, and, in the same lens, according to the relative opening, so that it is perfectly possible that use may be made of the swing-backs and side-swing, the rising-front and the spherical aberration of the lens for the same ultimate purpose, all at the same time.

Perhaps some one may remark at this point, "But it isn't necessary to *know* all this — all that is required is to watch the image on the ground-glass, and see that the result is attained."

But this is not the case. If by watching the ground-glass you do not get the effect you desire, in the place you desire it, and do not know the reason for your non-success, or the cause of what you do, how, save by tedious trial and error, will you get it? It is true that a painter may try a dozen effects with different colors before getting what he wants, may apply the brush and paint out, try a different brush, a different medium and, at last, only

through what is in a sense trial and error, arrive at the result which he desires. And so may you make a dozen photographs of one scene, with this, that and the other focus, from the other, that and this standpoint, and so at last, by a similar process of trial and error, arrive at the effect you had in mind when you started. But the painter knew, when he made his various trials, how to use his brush, and what they and the brush might be expected to do. He was not learning the use of his tools in so trying, but aiming at a certain effect, the looks of which he could not judge until he saw it. So you, with your camera, may be aiming at a certain effect, and be unable to know whether you have it until you see the print; but that is no good argument why you should be learning your technique while you are trying to get the effect.

Know what you do, why you do it, and what results will follow — leave the trial and error for the thing itself, not the use of the tools which you use to make the thing.

It seems almost supererogatory to say for what purposes, artistically, such aids as swing-back and lens-aberration should be used, but perhaps a concrete example or two may serve better than dogma. Let us suppose you are photographing a hill-side, from the bottom of which a winding path leads over the hill, and that the top shows trees against the sky-line. You can get it all sharp by focusing on the near middle-distance and stopping down. But you don't want it all sharp. You want the near foreground and middle-distance reasonably distinct, the sky-line softened, the trees just hazy enough not to have that microscopic detail which your eye does not see. What do you do?

If your lens is anastigmatic, you have no spherical aberration to help you. You have recourse to the swings. You don't focus on the near foreground, because that throws the background too much out of focus. You tilt the back a little, the top slightly further from the lens than the bottom. Then, on examination, you find that focusing on the middle-distance, as before, keeps the immediate foreground

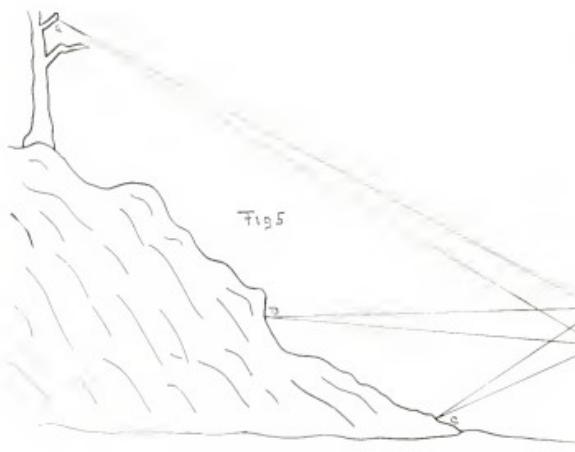
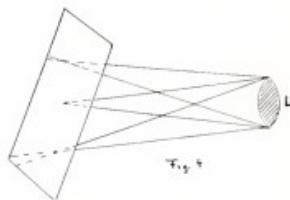
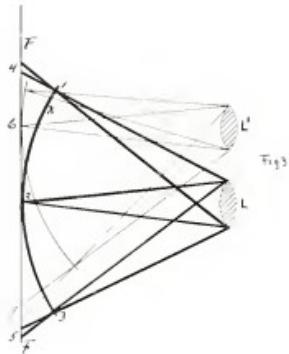
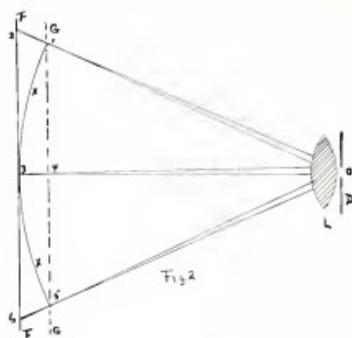
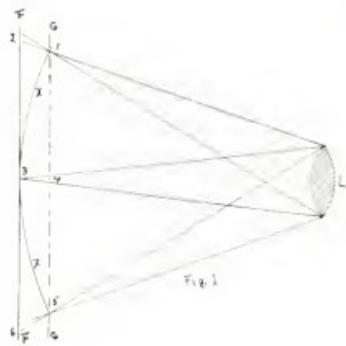
from being too much out of focus, while the background is softened to just the required amount (see Diagram 5).

A somewhat different case is found in making a picture of a cottage, in front of which is a rather long fence. If you get the cottage and the fence quartering the camera — so it is taken from one corner, in other words — you will find that, focus how you will, some part of that fence is going to "fuzz up." Moreover, with a long-focus lens it is going to do this to too great an extent. So the side-swing is brought into play, to bring the plate more nearly parallel with the fence, when the focusing can be made much more even. Using the side-swing for this purpose eliminates it from further consideration for other purposes. It is in such a case as this that the adjustment of the sliding-front may be found useful to throw the center of sharp focus of the lens afflicted with spherical aberration where you desire it, so that the cottage and the fence alone preserve enough clarity of focus to make your picture what you want, while softness and roundness form the background and surrounding trees.

The photographic technician, who has nothing of the artist about him, is by now frothing at the mouth. I can fairly hear him declaim:

"But your angles are all wrong! You can't use swing-backs and swing-fronts that way without entirely upsetting your drawing. Your perpendicular lines won't be perpendicular, and your horizontal lines won't be horizontal!"

He's quite right — they won't. But neither he, nor you, nor any one else will know the difference, in landscape work: no, not even landscape-work with figures, unless the figures bulk very large in the scene. There are no perpendicular lines in a landscape, and but one horizontal line in nature at all, which cannot be changed in direction some small degree without looking unnatural. The one exception is the horizon-line, which must, in a seascape, be horizontal. No tree which ever grew but what would look as natural two or three degrees off the perpendicular; no road, nor river, nor stream which



DIAGRAMS ILLUSTRATING THE USE OF THE SWING-BACK

wanders straight away but what can be, optically, bent from its course a trifle without impairing the result. You are not trying to make a map, you know, but a picture; it is not your intention to see how closely you can copy the scene in front of you, otherwise you would but stop to U. S. 128 and proceed. You are entirely justified to use the swings and the aberration of your lens in any way which you can, to produce the softness where you want it, the sharpness where you want it; and if, in doing so, you do destroy absolute rectilinearity of the right lines in the picture which are not there, who is to know — more, who, knowing, cares?

#### EXPLANATION OF DIAGRAMS

Figure 1. Spherical aberration, greatly exaggerated. The rays of light from the lens, L, instead of coming to a focus on a flat plane (the plate) F F, are focused upon an imaginary curved surface, X X. Three cones of light are shown, focused on three points on this surface, 1, 3 and 5. The inverted cone which follows all continued cones of light from a lens makes a circle of confusion at 2 and 6 upon the plate, F F; in other words, only the center of the image is in focus, the edges are fuzzy. If the plate be moved towards the lens, to occupy the plane shown by the dotted line at G G, the cones of light focused at 1 and 5 are in focus on the plate at G G, but the center cone is cut by the plate before it comes to a focus, and thus, at 4, there is a circle of confusion. In other words, the plate here is sharp at the edges and fuzzy in the center.

Figure 2. The same as Figure 1, but showing how and why spherical aberration is eliminated by stopping down. Here is a diaphragm, D, in front of the lens, L, with an opening, O. The light from the subject, being photographed, has to pass this diaphragm before it strikes the lens, L, and the bases of the cones of light formed by it are of the same diameter as is the stop. While, as before, the cones at 1, 3 and 5 are at sharp focus only on a curved surface, the diameters of the cone at 4 and

of the inverted cones at 2 and 6 are so small as to be practically points, and they so appear to the eye. The plate here can be either at F F or G G, and have all parts in focus at either place. They are not all *actually* in focus, but, with reference to the  $\frac{1}{16}$  of an inch usually taken as the measure of the size of a circle of confusion which can be considered sharp by the eye, they are.

Figure 3. Shows a lens at L, and the same lens, raised by means of the rising front at L'. The cones of light formed by the lens in its normal position have been drawn in heavy lines, that they may the more readily be distinguished. In the first position, the center of the plate is sharply focused, and the edges are soft, on account of the cones of light coming to a focus on the curved surface X X, at 1, 2 and 3, instead of on the plate, F F. In the second position, the lens has been raised above the center of the plate, with the result that the sharp part of the image is at 6, while all below it, down to 7, is soft and fuzzy. As the top of the plate is the bottom of the picture, or foreground, the diagram explains why raising the lens and tilting the camera keeps the foreground sharp and softens a background without disturbing the focus.

Figure 4. Is a representation of the plate when tilted with both swings, horizontal and perpendicular, showing that but one point upon it, and that the center, is in sharp focus.

Figure 5. Represents a landscape showing a hillside and a tree and a greatly exaggerated lens and plate. The cones of light starting from the points "a," "b," and "c" come to a focus at "x," "y," and "z." Reference to the normally perpendicular plate, P P, shows that only "y," the middle distance, would be reasonably sharp — both foreground and background being softened. But by tilting the plate backwards, as shown at T T, it is seen that "x," the immediate foreground, is sharp, "y" is reasonably sharp, and only "z" is softened, and that not nearly so much as if the plate were upright.

*Art makes no concessions, it imposes them.*

— EDOUARD PAILLERON.

# On Copying Daguerreotypes

LESLIE S. TRUSO

DAGUERREOTYPES are notorious for a very irritating tendency to reflect the lens-mount and camera-front when copying; and very frequently amateurs are dismayed by the apparent difficulties which present themselves on attempting, for the first time, to reproduce these quaint little relics of early Victorian days. The two most popular methods at present are:

Firstly, by setting the photograph in a deep box with a slit at the side or top to allow the light to fall directly on it and nowhere else, the camera-front being inserted at the opening. This method is good, but somewhat lengthy, inasmuch as the box must be prepared beforehand, and then, owing to limited illumination, the exposure is long.

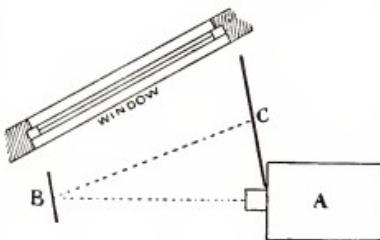
The second method is by suspending a piece of black velvet over a clothes-horse or other accessory, and cutting a hole in the centre through which the lens is thrust in such a manner that none of the mount shows, thus avoiding reflections. Unfortunately black velvet is not always at hand, and is a somewhat expensive article to buy, so another method must be thought of.

The arrangement shown in the diagram illustrates a method by which I overcame the difficulties of both reflection and exposure, and at the same time the resulting copy is found to possess far more brilliancy than is obtainable by any of the other methods described in this article.

A space should be cleared on a table close to the window, and the camera A, the daguerreotype B, and a piece of smooth white pasteboard C, set thereon in the manner indicated. The pasteboard must be as near to the camera as possible, and exactly parallel to the daguerreotype — further, the smaller the angle ABC the better — next, focus. If the setting has been correctly done, the picture on the ground-glass will be negative owing to the daguerreotype reflecting a white object, and the developed plate will be a positive, from which a negative must be made by contact. Owing to the bright nature of the image the exposure is extremely short, even with a slow plate.

The advantages of this method are: added brilliancy, shortness of exposure and total avoidance of undesirable reflections. It has one disadvantage, that of a very slight, imperceptible, but quite inevitable distortion of the image on account of the angle at which it is set to the camera — this distortion can, in many cases, be rendered invisible by a little judicious tilting in the enlarger.

The distortion referred to could easily be avoided by using the side-swing of the camera-back so as to get plate and daguerreotype parallel. As a very short exposure is all that is necessary, we can afford to stop down to obtain sharp focus. If the angle ABC is kept as small as possible excessive stopping down can be avoided.—*Photo-Notes*.



*Each country should have its pictorial mark.*

— ALFRED STEVENS,



A LANDSCAPE IN HOLLAND  
F. J. MORTIMER, F.R.P.S.



# Home-Made Plate-Sunk Mounts

I. W. BLAKE

PLATE-SUNK impression is a *depression* made by forcing with careful pressure a steel die into a sheet of either light or medium-weight paper. The design is always plain, the body being a smooth flat surface, while the outline takes an oval, an oblong, a round, or a square form according to the shape of the die employed. This design is termed plate-sunk, because the die is sunk—literally into the surface of the paper.

For photographic prints, this plate-sunk finish cannot be surpassed. It has an elegance of its own, its rich simplicity giving a marked individuality to each print, just as an etching or an engraving with a plate-sunk outline is much more impressive than one finished in the plain. It possesses, moreover, the advantage that it can never become common among amateurs, for the reason that the art of turning out a good plate-sunk mount, while easy in itself, is one that will not appeal to a careless, impatient worker.

Steel dies and heavy pressure are not needed in amateur work. The paper used is generally of light or medium weight, and can be readily manipulated to produce a similar effect by means of a simple apparatus. This consists of two thin boards, each cleated to prevent warping. These boards are hinged together at one end, so that they may be opened like a book. In the upper board, an opening is cut, turning it practically into a frame. On the lower board is fastened a plate or block of the exact shape of the opening in the frame, but somewhat smaller, so that when the frame is shut down, this plate or block rises with some free play, through the opening, standing about a quarter of an inch higher than the latter. To make the plate sunk impression, the paper sheet is shut in firmly between these boards, the pressure between the block and the opening bending the paper into shape. The outline is then further accented by gentle rubbing with a bone or ivory paper-cutter

—not metal, for metal may discolor the paper. When released, the paper sheet should have a neatly turned depression of the block's outline.

Frames like the foregoing may sometimes be found in stock, but they are usually sold in small sizes, thus limiting the work. A serviceable substitute may be made by hinging two thick cardboard mounts together with strong cloth, and using a light-struck glass plate for the block, cut to the size to correspond to the opening in the upper mount. The requirements are always that the opening be true to measure, and cut out with absolutely smooth edges and corners. The block's face, sides, corners and, especially, its edges must be perfect in outline, without bruise or indentation, as any defect or unevenness will be reproduced with startling fidelity when rubbed with the bone paper-cutter. Metal or wooden blocks may be used if preferred, but glass should always have its sharp edges carefully dulled with fine emery paper, as otherwise they will cut through the paper.

These blocks, and even the glass plate, can be attached to the foundation board with library paste. If care is taken to preserve these home-made plate-sinking frames from warping, they will do excellent work, and under reasonable treatment, last a long time. Their advantage is that they may be made in any size, and the number unlimited.

Before making such frames, it will be well to study the important subject of proportion by the examination of a number of plate-sunk finished pictures, as for example, book-frontispieces, or a large wall engraving. Note the liberal space allowed between the actual engraving and the outline of the plate-sunk depression, and also the wide margin that surrounds the whole. It will be seen that the margins are not of uniform width. That the best proportion allows the widest margin at the base, the next widest at the top, while



TRAFalGAR SQUARE, LONDON

WILFRED A. FRENCH

the side margins are narrower than the top margin. This rule of proportion holds good in both perpendicular and horizontal subjects, although in fanciful arrangement, the margins are sometimes varied to even a freak degree. It is for the worker to display his artistic taste by selecting the size of sheets that will most effectively bring out the beauty of his prints, remembering always that wide margins, well proportioned, impart the richest effect.

There are various ways of finishing in this plate-sunk style. One way is to plate-sink a blank sheet of the selected paper, afterward pasting the print into position. The main objection to this is that the sheet is apt to cockle, even though very thick paste is used. If dry mounted, pressure from the warm iron is sure to blot out the clean-cut edges of the plate-sunk depression. The better way is to paste the print directly upon the sheet and, when dry and smooth, produce the plate-sunk effect after careful centering.

The most artistic, expensive and difficult method consists in carrying out the operations of printing, developing and fixing directly upon large-sized sheets of gaslight papers, plate-sinking each sheet when it is dry and smooth after pressure in the blotter-book dryer. This method is the most artistic because it gives a finish exactly like that of a high-priced engraving, there being no eye-catching line of separation such as appears when the print is pasted upon the sheet. It is expensive, because large-sized sheets of fine gaslight paper are costly, and there will be waste at first. The method is difficult, because the handling of such large sheets requires a quick eye and hand, and good judgment. To keep the margins absolutely spotless is a heart-wearing task—yet, the game is well worth the candle. Prints finished as described will be very different from the common run, and ten thus finished will be worth more than five hundred mounted in the ordinary way.

# A Home-Made Paper Developing-Box

EARL FULLERTON

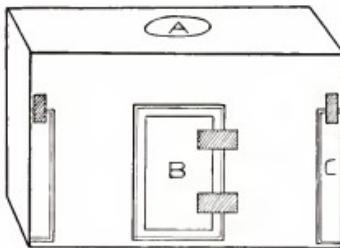
WORKERS who use gaslight developing-paper and who have not access to strong artificial illumination—gas or electric light—may wish to copy my simple and home-made contrivance for this purpose. Take an ordinary wooden box about  $10 \times 20 \times 30$  inches, such as may be found in any store. I mention these dimensions, because they are those of the box that I happen to have. Setting it on its narrow side, cut a hole A in the box at the center of the top, as seen in the accompanying diagram. This affords an opening for the escape of the fumes and heat of the lamp, which is placed directly in the center of the box immediately underneath the opening. An opening for a door is then cut in the middle of the front side large enough to admit an ordinary lamp. I use a low or flat lamp with a No. 2 burner.

For the door or opening make a frame of the proper size and cover it with yellow post-office paper or yellow fabric, which will give plenty of safe light to work by without fogging. Use pieces of leather

to fasten the door to the box, as indicated in the diagram. A door, similar to the middle one, may be made at C—the end of the front side of the box—to admit the printing-frame, which, in my case, is a  $5 \times 7$ ; hence I made this narrow door about eight inches high and two inches wide and fastened it at the top by means of a piece of leather. Now make another similar door at the opposite end and same side of the box. Thus, two printing-frames can be used at the same time. This completes the box. Place the lamp inside and all is ready.

The advantages gained by using such a box are as follows: The paper should print in about one-half the time required by the same light not confined. The nega-

tive is always the same distance from the light, which latter is always uniform, as it does not need to be turned up or down until the work is finished. Therefore, prints exposed in this manner receive more correct and uniform illumination. Also, one can produce four or five times as many prints as by the open lamp-light.



AUTUMN SUNSET

WILLIAM F. LAMBRECHT



THE CREEK IN SUMMER  
EDMUND H. ROYCE



# Traffic in Second-Hand Apparatus

CHARLES G. WILLOUGHBY

AS I sat at my desk recently delving from photographic bargain-hunters, one of my clerks laid before me with other things a copy of PHOTO-ERA, calling my attention to an editorial therein, the subject of which has been chosen for this article. It occurred to me, then and there, that some one should take it upon himself at least to write a little more at length regarding illegitimate traffic, for it is along this branch of the business that so little in the past has been said. Illegitimate traffic, particularly that end of it relating to lenses, has always been, and always will be, found in a more or less flourishing condition. It is true that less of the illegitimate was to be found ten or fifteen years ago. This is entirely reasonable, for the general photographic business in those days was on a much smaller scale than that of to-day. To-day the light-fingered family has become one of the problems in the photographic business, and the best evidence that this element has come to stay, is found in the fact that it has become so profitable.

The professional photographer is by far the easiest mark for the lens-thief. One can visit a dozen studios here in a very short space of time, and the operating-room in nearly all of these places will be found without a human being in it. The owner perhaps may be in the dark-room developing, or he may be on the roof hustling out a lot of prints. It matters not to the thief, for there stands the camera with a hundred dollar anastigmat staring him in the face. If the photographer had owned a hundred-dollar diamond he would have taken it along with him; but the lens—oh, no, that will take care of itself. Possibly this is true, if it be of the old, Long Tom cannon variety that nobody wants; but of late years this type of objective has deservedly become obsolete, and the modern anastigmat adorns the camera instead.

The photographer who is separated from the medium through which his success may depend, parts with a friend, indeed, and is entitled to all the sympathy we can offer. But that does not bring back the lens, therefore what is to be done? The thief knows better than to visit a legitimate supply-house, for there he would be obliged to prove title to the property in some way, and he is not the one to take such a chance as this. The pawn-shop is his haven of refuge, for he knows the owner cannot possibly notify the police sufficiently in time to block any game of his.

When a photographer finds that his lens is missing, the first thing to do is to notify police headquarters, requesting that a search of the pawn-shops be made. If this search is made promptly it will, in a certain number of cases, be of benefit. The stock-houses dealing in second-hand lenses should also be notified, since a beginner at the game might go there instead.

The dealer in second-hand goods is alive to the principle involved in lending encouragement to light-fingered artists, and when any concern does in any way so encourage, it at once becomes nothing less than a fence and should be summarily dealt with as such. All good lenses have the numbers and makers' names engraved either on the barrel or on the mount—but all so engraved may not be genuine—and if stolen may be claimed at any time if found.

There is scarcely any excuse for a dealer having stolen goods in his possession, although there are times when the best of them are deceived. One who has had an atom of experience in buying second-hand goods can instantly size up the real article—the experienced thief—but it is the beginner who is apt to get by you. In him you fail to recognize the usual traits of the old, seasoned veteran and, as a consequence, considerable in him is overlooked.



WM. STRANG, ESQ., A.R.A., LL.D.

J. CRAIG ANNAN

When your customer hands to you a flangeless lens, suspicion number one should at once be aroused. In his hurry to get away, the thief seldom succeeds in getting the flange. Again you are asked to make an offer and are seldom asked a definite figure in return. Five or ten

dollars, either way, little concerns the thief, as his main object is to realize something on the stolen property and quickly fade from view. Unless your man is a finished artist, he will become nervous and over-anxious to put the deal through, while, on the other hand, an

innocent individual impresses you just the reverse. When all signs fail and you feel that your man should be put through the third degree, just ask him to leave the lens until the title can be investigated. Stolen property cannot stand the latter test.

But the photographer is not the only one who suffers by the class which makes a business of stealing or handling stolen goods. Stock-houses are occasionally raided, and when this occurs, the goods, if stolen in quantity, are generally shipped to other large cities and so disposed of, that detection may become difficult or impossible. Again, new recruits in the game may sometimes be found working side by side with other employees where lenses and cameras are kept for sale. When this occurs, a fence generally exists, and a stolen article is then passed along to another who is more experienced in making a successful disposition.

A few years ago the pawn-shops scarcely knew a photographic lens from a pair of roller skates, and, as a consequence, their proprietors were almost afraid to deal in them at all, but now all this has changed since the pawn-shop dealer knows the lens as well as he does the diamond. Here the article must remain one year before disposed of. This affords plenty of time to forget; consequently when a lens comes out at the end of twelve months, the title generally passes without challenge. The searching of pawn-shops by officers of the law occasionally rewards the owner of a stolen lens, but only so. Where one lens is found, nine others remain unidentified. Several years ago the writer loaned to a friend an anastigmat lens, practically new, and catalogued at \$125.00. My friend had the lens only a short time when it was stolen from him in some mysterious way. The pawn-shops were systematically searched at the time, but in vain. Fifteen months later one of my good customers came walking in and asked my clerk to fit a flange to the identical lens, whereupon the clerk seized the lens and received the reward that had been offered. I saw to it that the customer lost nothing, but the pawn-shop dealer disgorged. He had

loaned \$6.00 on the lens, and had sold it to my customer for \$75.00. The parting of that \$69.00 profit was to him grief overwhelming. He could more easily have spared a dear friend.

I have personally been instrumental in railroading two lens-thieves over the route where others of this class now belong, and have spent time and money in attempting to run down other suspects, but here in New York it is not an easy matter to convict an offender, the reasons for which are not necessary to state.

The buying-public can with absolute safety purchase a second-hand lens from any responsible photographic stock-house to-day, and not only save money thereon but feel absolutely secure as well. No one should send his money to dealers whose responsibility, moral, financial and otherwise, is not of the best. This information can always be had from lens and camera-manufacturers of good repute, also from nearly all photographic magazines. They know who are, and who are not, to be trusted. If you wish to take the chance of buying a photographic lens from one of the pawn-shops, the itinerant salesman who visits your studio, or the irresponsible dealer, the risk is one of your own choice; and when you do take a risk of this kind you must not expect redress. The avenue to redress was closed when the sale took place.

This article has been purposely written in the hope that it may save trouble and loss to many a future purchaser. You should ever keep in mind that glittering advertisements or other similar devices do not entitle the dealer to your patronage. Surely you do not want to feel that, in parting with your money, it becomes necessary to hold it in one hand while you cling to the goods with the other. The photographic magazines should become the medium through which the red signal of warning should ever be displayed. The buying-public and, particularly, the mail-order portion of it, needs this protection from the sharks, who, unfortunately, can ever be found riding over the roadbed built with the honest endeavor and square-dealing of others.



CHARLES K. HAMILTON FLYING IN A CURTISS BI-PLANE AT CORONADO, CAL.

HAROLD A. TAYLOR



MER DE GLACE

W. A. ROWLEY

## A Camera-Tour in Switzerland

W. A. ROWLEY

OVERHEARD, during a spell of rough weather, on the boat going over — “Is he,” — pointing to a fellow passenger somewhat seasick, “a literary man?” “No, but he seems to be a contributor to the *Atlantic*.” A contributor to the PHOTO-ERA is assuredly more pleasant.

When picture-making is the main object of a trip, it is better to go alone; an impatient companion, uninitiated in the camera-art, cannot always appreciate waiting a couple of hours for a certain cloud-effect on a distant mountain, or walking a mile on a hot day to snap a waterfall, even in so lovely a country as Switzerland. If you are a real enthusiast, you will never be lonely, even if your only companion is a camera.

An important item in touring a foreign country, picturesque Switzerland in particular, is the supply of sensitized material. The camerist with an eye for the beautiful may find, in the course of a day, subjects enough to exhaust a supply of material which he has intended to last a week or even more.

It is possible to obtain fresh films and plates, particularly the former, in any of the larger Swiss cities, as well as in many of the smaller resorts frequented by tourists.

Walking through the principal streets, you will notice the sign “Kodak” projecting over the entrance of some store, and it is as welcome to the camerist as the sign “Thomas Cook and Sons” is to a worried tourist.



TOURISTS ADMIRING THE MER DE GLACE

W. A. ROWLEY

The dealers I have found to be honest, but it is best carefully to examine the expiration-date on the spool of film, in order to be sure of its freshness. You may desire to do your own developing *en route*; some camerists visiting Switzerland for the first time are eager to see the results of their exposure and have their films developed by almost any photo-finisher; alas! some people entrust the work to careless or inexperienced operators, who manage to spoil it. I speak mainly of films, because, everything considered, they are more desirable for traveling-purposes. Plates are heavy and fragile, and dark-rooms for loading or changing plates are not always available.

In the case of film, I should advise carrying a developing-tank, to enable the camerist to determine the accuracy of his exposure, for he may not for years, if ever, revisit this lovely region.

The writer has used a Cartridge Kodak No. 4 for years, equipped with a Series III,

No. 2 Goerz lens, and found nothing better. In photographing mountains, remember that the thin air and snow-masses require a smaller stop and a quicker exposure than usual.

Switzerland has many beautiful spots to attract the camerist and tourist, but none more impressive than Zermatt, with its mighty Matterhorn, and Chamounix (which is really in Savoy), with its stupendous Mont Blanc, the "White Mountain."

An ideal way, though roundabout, to visit Zermatt and Chamounix, is from Lucerne over the wonderful Brünig Pass Railway to Meiringen, where *diligence* is taken for a magnificent ride over the Grimsel Pass to Rhone Glacier Hotel, at the conjunction of the Grimsel, Furka and Rhone Valley roads.

Be sure to have a front seat in the *diligence* and your camera ready, for the vistas of snow-capped peaks will be irresistible in most cases.



TOURISTS WATCHING A PARTY CLIMB MONT BLANC  
MOUNTAIN STAGE IN THE RHONE VALLEY

W. A. ROWLEY





THE MATTERHORN  
AN ALPINE VILLAGE IN THE RHONE VALLEY  
W. A. ROWLEY



W. A. ROWLEY

ALPINE SCENES  
*From Left to Right:* "An Approaching Storm," "Picturesque Swiss Home," "Mont Blanc Range," "Glacier and Giant Peaks," "Crossing the Mer de Glace," "Near Chamonix."



Those who have not photographed in these high altitudes will be interested to know that, as the air is exceptionally clear and the light actinic, reflected from so many white, glittering surfaces, it is easy to overexpose.

Of course, such subjects as waterfalls, the Giessbach on Lake Brienz, for example, where the light is somewhat obscured, require longer exposure; similarly, in the valleys, such as at Chamounix, Interlaken, Grindelwald or Meiringen, the light is shut off to a certain extent by the towering mountains, a longer exposure is necessary. An average exposure of  $\frac{1}{5}$  or  $\frac{1}{15}$  of a second with stop F/8 in lower latitudes would necessitate about  $\frac{1}{50}$  of a second with stop F/16 in the higher regions.

At the "Gornergrat" for example, the accompanying pictures were given an exposure of  $\frac{1}{50}$  second, with stops F/16 and F/32, according to the varying light.

We stay all night at Rhone Glacier Hotel, and, as it is very comfortable, let us digress a moment to relate a story heard there in the evening. A party of tourists had arrived from Italy after an unsatisfactory stay at a hotel which had a peculiar name. The proprietor, being asked how he had selected such a name, replied, "Messieurs, so many Americans, when going away, said, 'Well this is the limit,' that I called it the 'Limit.'"

Our camera will be busy next day going down the Rhone Valley; we pass many beautiful villages and picturesque, comfortable hotels or "pensions." We reach Brigue all too soon, and then transfer to another wonderful mountain railroad to Zermatt. Ideal photographic weather greets us; the pyramid of the mighty Matterhorn stands out sharply in the clear air, and we "get busy" with the trusty camera at once. The narrow, picturesque streets, the guides lounging about, and the

mighty mountain rearing aloft offer unlimited material for our lens. But grander than all is the view from the Gornergrat, an elevation of some 10,000 feet above the town, reached by the rack and pinion road. As far as the eye can reach are snow-clad peaks and glaciers dominated by the awful Matterhorn, called by the French "Mont Cervin."

Between Zermatt and Chamounix there has always been a rivalry. Each, however, has its own peculiar charm, and the photographer or artist could linger for weeks at either place.

Chamounix is in a lovely valley under the shadow of the great snow-capped giant of the Alps. Arriving we find the same ideal weather-conditions, but the guides tell us a change is due.

Down the street we see a telescope, with a sign informing us that ascents are to be seen on the mountain, and, sure enough, we observe a party of four struggling toward the summit.

We find many subjects for pictures; the great glaciers, which seem almost ready to fall bodily and crush the town, the guides lounging about, as at Zermatt, and the great Mer de Glace, or Sea of Ice. But none can compare with the towering peak itself, rising over 15,000 feet, and covered with an immense mass of snow. But we must hasten with our pictures; the storm-clouds are gathering around the summit and the guides say there will be bad weather for several days.

And now, upon leaving the lovely Vale of Chamounix perhaps forever, and taking a last photograph of the gigantic mountain, the words of Byron come to us:

"Mont Blanc is the monarch of mountains,

They crowned him long ago,  
On a throne of rocks, in a robe of clouds,  
With a diadem of snow."

*Most disputes about art are disputes about definitions.*

— ALFRED DE MUSSET.

## EDITORIAL

### The Amateur's Opportunity

THE value of an accomplishment as a means to a livelihood has been demonstrated so often, that it may be well to consider the subject with reference to the amateur photographer. There are in the United States, at a conservative estimate, about fifty thousand persons who practice photography as a pastime. By "practice" is meant, to carry out all the technical operations — from the exposure of the camera to the completed print. Among this large army of practical workers there are many who have attained a high degree of proficiency, who, in their particular branch of the art, equal high-class professionals in technical skill and artistic judgment, and who would find it pecuniarily advantageous to enter the field professionally — to make photography their sole or chief source of income, as the case may be. The amateur photographer who is employed as clerk in a bank, office or mercantile establishment, at a meagre salary and with little or no prospect of advancement, should put his photographic knowledge to a severe test in order to ascertain its value as a source of revenue. If the result prove satisfactory, he should try to utilize that ability to the best possible advantage. Are there opportunities? Yes, plenty of them. There is scarcely a photographic supply-store in any of the larger cities but needs competent, honest and energetic salesmen. The remuneration is from \$12.00 to \$20.00 per week and not without opportunities for betterment. The average photographic clerk, today, fails to satisfy either his employer or the customer, and there is a general cry for improved service in this particular field of activity. Department-stores are in need of intelligent and faithful assistants in their photographic sections, but find it extremely difficult to obtain them.

The business of photo-finisher is known to be eminently lucrative, in spite of the

fact that much of the work produced is of very inferior quality. This important industry thus calls for expert specialists who will give the material, entrusted to them, uniformly conscientious care, whether or not such efforts are appreciated, although on no account should the customer's orders, however capricious, be disregarded. There is considerable professional work being done, such as interiors, flash-light groups, copying of paintings, documents, etc., surgical operations, scientific demonstrations, that show but scant technical excellence. Here again are opportunities, numerous and inviting, where superior intelligence, aided by fully adequate working-tools, should find ready and profitable employment. Therefore, the amateur need never complain that the way to professional photography, as a means to make a living, is closed to him. There is always room for a highly-skilled and energetic practitioner.

### A Warning to the Dealer

**A**BOUT two years ago PHOTO-ERA pointed out the inadequate conditions and shortcomings of many of the smaller photographic supply-houses, particularly firms, including apothecaries, dealers in hardware, booksellers and news-dealers, who sold supplies as a sideline. In criticising the ignorance and carelessness frequently exhibited by such dealers, PHOTO-ERA described the results of keeping photographic supplies, such as films and dry-plates, paper and chemicals, in places where they were exposed to excessive heat or dampness, and then selling them, spoiled and worthless, to the innocent consumer. In many cases the inexperienced amateur would ascribe his failures directly to the manufacturer. We pointed out the injustice thus committed. Besides, there was to be considered the great disappointment of the consumer, as well as the time, trouble and cost expended — all because the dealer

was unacquainted with the nature of photographic merchandise. Of late, however, most of the small dealers have improved their methods of storing this class of goods; but there are many still, who are entirely ignorant on this subject.

We have received numerous complaints that dealers, knowingly or ignorantly, are selling photographic materials spoiled on their premises. We refrain from publishing the names of the dealers guilty of this gross injustice to the consumer and to the manufacturer, for we do not wish to injure their reputation. Nevertheless, we sincerely hope that they will hasten to become acquainted with the proper way to care for supplies, the keeping-qualities of which are so easily endangered by climatic influences and other causes. It would seem that common sense should teach them the folly of keeping perishable goods in hot or damp places, storing papers or films near strong chemicals, or leaving sensitive compounds exposed to the air. A careful dealer will deposit his perishable supplies in a cool and dry place, each kind separate from the other. It would seem also that the manufacturer ought to investigate the conditions in which his products are stored by the dealer, and to refuse to sell any more goods to him who is careless in this respect. The consumer who is aware of inadequate conditions in which supplies are stored, should consider it his duty to notify the manufacturer, so that the matter may be rectified, or another agent appointed. To sell, as perfect goods, sensitized material which has lain in a wet cellar, or in a show-window exposed to the sun all day long, is not, strictly speaking, businesslike. It is the wise merchant who will investigate and correct every cause, however insignificant, that may tend to lose him a customer.

### Paddle Your Own Canoe

ONE of the shrewdest and most successful dealers in the East owes his prosperity to strictly high-minded business methods. One of his principles is to avoid making comparisons between himself and a competitor. Whenever the name of a

competitor is mentioned, he has only kind words for him. The same is true of rival goods, including lenses, cameras, papers, etc. He does not believe in the policy of making comparisons whereby he may reap an advantage. He carries supplies only of the best quality — goods which he can positively guarantee — gives each customer a square deal, practices no deception and, thus, has created a large and loyal patronage.

Dealers or agents who are trying to succeed by climbing over the backs of others will do well to heed these remarks. Those tactless ones who indulge in idle boasting and publish fallacious and untruthful statements, waste their money and do not enhance their reputation.

### The Judicious Purchase of Apparatus

AT this time, when the business in photographic material is exceedingly brisk and opportunities abound for indiscriminate sale and barter, a word of caution to the uninitiated may not be amiss. Reference is made here to second-hand articles that are offered for sale through the agency of personal advertisements or certain dealers. In whichever way the camerist elects to purchase the coveted article, he should exercise the utmost precaution; for if it should prove to be lost, stolen or mortgaged property, he would be placed in an embarrassing position, besides incurring, probably, a pecuniary loss. After such an unpleasant discovery he naturally will hasten to restore the property to the rightful owner if he can be found, and restitution, doubtless, will follow. It is unfortunate that among the dealers in second-hand apparatus there should be some who are not at all critical of or through whom they obtain their stock in trade. Pawnbrokers are notoriously devoid of conscientious scruples. According to an old saying the receiver of stolen goods is as bad as the thief. Therefore, the camerist will find it advantageous to patronize only houses of recognized integrity, or firms or individuals recommended by trustworthy photographic journals.

# THE CRUCIBLE

A MONTHLY DIGEST OF FACTS FOR PRACTICAL WORKERS

*With Reviews of Foreign Progress and Investigation*

Conducted by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department  
Address all such communications to The Crucible, PHOTO-ERA, 383 Boylston Street, Boston

## Testing Sodium Sulphite

PURE sodium sulphite is one of the chief essentials to good photography, and the lack of it results in muddy negatives, gray bromides and green gaslight prints. Now that anhydrous salts are coming into more general use there is less of this trouble than hitherto. If one wishes to test the purity of any particular brand of sodium sulphite, a good method was recently described by M. Mathet, depending upon the fact that the sulphurous acid, which gives the salt its value as a preservative in developers, will dissolve potassium permanganate. If three and one-half grains of permanganate are dissolved in a little water, ten grains of sulphite crystals or five grains of anhydrous sulphite also dissolved in a little water should render the combined solution very nearly colorless. If this does not occur within a minute the sulphite is not satisfactory, and by determining just how much sulphite is required to dissolve three and one-half grains of permanganate it is an even matter to calculate the relative strength of the sulphite and to decide what increase would be necessary in any formula to secure the full preservative action required.

## Computing Stop Sizes

SECOND-HAND lenses are often sold without stops, because they have been lost or damaged. When an amateur wishes to make stops for himself and have them of definite value he is sometimes uncertain how to go about it. Almost any person who knows anything about lenses will have very little trouble in making one stop with fair accuracy, but the others of the series must be mathematically calculated. In the *British Journal of Photography* for March 11, a simple method is described. A well-known geometrical problem teaches us that in a right-angle triangle the square on the side subtending the right angle is equal to the sum of the squares on the other two sides. If these other two sides are equal, it is obvious that the square on either one of them is equal to half the square on the longest side. Therefore the ratio of one short side to the longest side is that of the diameter of two lens-stops, one of which requires twice the exposure of the other. We therefore need only to draw a right-angled triangle with two equal sides, making one of these sides equal to the diameter of our known stop. The longest side facing the right angle is then equal to the diameter

of the next largest stop. Having fixed two of the diameters, the rest are simple multiples of these two, thus if we know the diameter of //11 and find that of //8 by the simple construction described, //22 and //44 are respectively half and a quarter of //11, while //16 and //32 are half and a quarter of //8.

## Black Tones on P. O. P.

THE following method of obtaining black tones on collodio-chloride paper by means of platinum is given in *Das Atelier des Photographe*. "The paper is to be printed very deeply, much deeper than for ordinary gold toning. The washing must be done carefully, and it is better to add a little ammonia or salt to the second washing-water, by means of which any chloride of silver remaining in a soluble condition will be dissolved out. From this the prints go into the following toning-bath:

Water .....	34 ounces
Sodium acetate .....	4 drams
Gold chloride .....	15 grains

This bath can be made to keep by adding a few drops of hydrochloric acid after use, and neutralizing with soda before using it again. The prints go through the ordinary tones in this bath, and the toning is stopped when they have arrived at the usual bluish tone by transmitted light. They are then slightly washed and placed in the following platinum bath:

Potassium chloroplatinite .....	15 grains
Water .....	10 ounces
Tartaric acid .....	4 drams
Citric acid .....	77 grains

In this bath the prints quickly become a deep, velvety blue-black, which, if left too long, becomes a bluish gray. As soon as they show a pure blue-black by transmitted light, free from any tinge of violet, the toning must be stopped to preserve the half-tones. It is a good plan at first to treat thin slips of the paper in exactly the same way as the prints, and to take these out of the toning-bath from time to time — say every half-minute — and test them by dropping nitric acid on them from a glass rod. When no change is brought about by the acid, the platinum toning is complete. The prints are then slightly washed, fixed in hypo (1 to 10), and dried on blotting-paper. The deep blue-black tone changes to pure black in the fixing-bath, and the prints have brilliant whites and great depths in the shadows."

## Edinol-Hydro for Bromide Paper

AN error crept into Mr. Harry Coutant's formula for Wellington bromide paper which was published in PHOTO-ERA for April, and, therefore, it is given below in its correct form.

### Edinol-Hydroquinone Developer

Water	.....	50 ounces
Edinol	.....	½ ounce
Hydroquinone	.....	1 ounce
Sodium sulphite, anhydrous	.....	3½ ounces
Sodium carbonate, anhydrous	.....	6 ounces
Potassium bromide	.....	60 grains

Dissolve in hot water about 180°. For use take one ounce to five ounces of water.

## Globe Polish and Stale Plates

It comes to most amateur photographers, writes Mr. R. H. Baskett in *Photography* for March 1, at some time or other to have a number of stale plates on hand which are rendered worthless owing to the bright silver film extending from their edges inwards to a greater or less extent. Recently, having a number in this condition, I determined to try our old friend Globe polish upon them; and this I did with excellent results.

Placing the plates one by one, film outwards, in a printing-frame, I rubbed the surface of the film with a pad of absorbent cotton, upon which I had placed a little salad-oil and Globe polish. In less than a minute all the bright silver was removed, and the gelatine surface had taken a fine polish, and was beautifully clean.

After exposure, by magnesium light, in developing them I found a total absence of pinholes, an increase of speed, and decreased halation, which I attributed to the polished surface allowing the light to enter and also escape more easily.

After this cleaning, the plates, although very old, were quite equal to those freshly purchased. So we see there is no need to waste plates because of their being stale, when a few minutes' work will restore them.

The question to be asked from this little experiment is, Would it not pay the worker to clean and polish his plates in this way before undertaking very difficult work in interiors, etc.?

Certain it is, nothing is lost by doing so, for many faults in negatives are caused by blemishes in the glass or film, and these are noticed at once in the rubbing, and so can be avoided, and in work that is in any way particular additional safety can thus be gained.

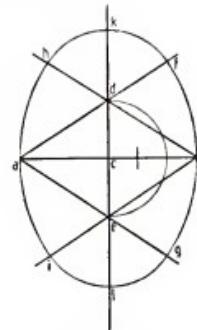
A certain amount of opacity is needed in the emulsion for the formation of the picture, but do not the matt surfaces of our plates act as a resist to the action of the light in exposure, and also increase halation by resisting the escape of the reflected light from the surface of the glass, thus decreasing speed and helping halation?



*There is a quality which is rare in art: force.*  
— THÉOPHILE GAUTIER.

## How to Draw an Oval

A LINE *a b*, the desired width of the oval, is halved at *c* and a perpendicular drawn each way. The distance *c b* is then divided into three equal parts, and from the center *c*, with radius two-thirds of the distance *c b*, a semicircle is described which meets the perpendicular to *a b* in the points *d* and *e*. The point *d* is then connected to *a* and *b* by straight lines, and *e* is likewise connected with these two points. From *b* with radius *b a* the arc of a circle is drawn, *h a i*, and from *a* with the same radius the arc *f b g*. Finally, with radius *d f* and from the points *d* and *e* further arcs *h k f* and *i l g* are drawn, completing the oval.



If, instead of proceeding as directed above, the first semicircle drawn from center *c* is made with a less radius than two-thirds of the distance *c b* and the remainder of the process carried out as before the oval obtained is rounder; whilst if a longer diameter—that is, more than two-thirds of *c b*—be taken, a longer oval is obtained; but the most pleasing dimensions are those when two-thirds of the diameter is adopted. — *British Journal of Photography*.

## Drying Films

ANY tendency of films to curl as they dry, when hung in long strips, will, in a great measure, be obviated by removing as much surface-water as possible when washing has been completed. A little device for doing this without danger of scratching the films can be made of two glass stirring-rods and a little block of wood. Bore two holes through the wood about half an inch apart and of such a diameter that the glass rods will fit into them tightly. The resulting device is a sort of fork which may be placed over the film, as it hangs ready to dry, with a glass rod on each side. By turning the block of wood to one side or the other the rods are brought into contact with the opposite surfaces of the film, and, when drawn downward, from top to bottom of the strip, carry along and remove nearly all of the surface-water.

# THE ROUND ROBIN GUILD

*An Association of Amateur Photographers*

Conducted by ELIZABETH FLINT WADE

This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography, although advanced camerists are just as welcome and many are numbered among its members. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free and may be obtained by sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston.

Send a stamp for complete prospectus.



DECORATIVE ARRANGEMENT

KARL F. STRUSS

FIRST PRIZE — DECORATIVE TREATMENT OF TREES

## Gaslight Prints in Various Colors

The color-effects obtained by means of the Ozotype, Ozobrome and Bromoil processes are a source of envy to the worker whose time is so limited that he must content himself with the gaslight printing-papers. The desire of the amateur for some other color besides black and white for his gaslight photographs is perhaps what has led our chemists to experiment with this simple, rapid and very satisfactory way of making prints. It is found that by the addition of certain chemicals to the developer the color of the print is affected, and that by varying the chemicals the tone of the print may be varied.

Besides the direct process of varying the tone of the print in the developer, the color of the print may be changed by toning it, and in this method is the greatest latitude. The ease with which the tone of a gaslight print may be changed to the color which seems most desirable for the subject proves very fascinating to the amateur who tries the experiment, and he becomes as enthusiastic over his results as does the Bromoil worker over his interesting prints.

The developer which seems to give the best results both in obtaining color direct by developing, and also in the toning of the finished print, is the metol-hydroquinone. The following formula is an excellent one:



FAIRYLAND

DONALD GREY

## HONORABLE MENTION — DECORATIVE TREATMENT OF TREES

Metol.....	10 grains
Hydroquinone.....	15 "
Sodium sulphite, dry.....	60 "
Sodium carbonate, dry.....	120 "
Water.....	8 ounces

Add to this when developing ten drops of a ten per cent solution potassium bromide.

Suppose one wishes his prints to be brown. Then to the eight ounces of developer must be added 120 grains of sodium carbonate, and 16 minimis of the potassium bromide solution. Different shades of olive are obtained by using four ounces of the developer, four ounces of water, and adding one-half ounce of sodium sulphite and eight minimis of the potassium bromide solution. A dark olive is produced by the addition of one-fourth ounce of sodium sulphite, 16 minimis of potassium bromide solution and four minimis of nitric acid. The developer is diluted one-half, as directed for medium olive.

The manufacturers of gaslight papers will furnish complete directions for producing the different tones direct in the developer, the colors being varying shades of olive and brown, so that it is not necessary to publish them here. But the worker who likes to experiment—and most amateurs do—will, by using more or less of the chemicals required, get some very fine effects in the tone of his prints.

Though purple is not desirable for photographs, except perhaps for decorative work, yet if one desires a purple print, he can buy a two-solution preparation which, by using according to directions, will produce either purple or sepia

tones, the latter being very fine and resembling the real water-color sepia. This preparation costs 50 cents and there is sufficient for a large number of prints.

Ready prepared chemicals of various well-known brands for toning gaslight and bromide prints to a great variety of colors may be had of photo-supply dealers. Some of these have already been advertised in *PHOTO-ERA* and are highly satisfactory.

If one wishes to mix his own toning-solutions there are many thoroughly-tested formulae which may be used with fine success. Several of our Guild members have asked recently for a formula for producing green tones on gaslight paper. The following will be found to work most admirably, and one may obtain with it greens ranging from a light to a deep rich shade.

The print is first placed in clear water to moisten it well, then immersed for three minutes in a bleaching-bath made up as follows:

Potassium bichromate.....	20 grains
" ferricyanide.....	100 "
Water.....	8 ounces

The bichromate will stain the print some and it must be washed until the stain disappears, then tone in a solution made of

Cobalt chloride.....	80 grains
Ferrous sulphate.....	20 "
Muriatic acid.....	1½ drams
Water.....	8 ounces

The toning takes about ten or fifteen minutes, the resulting color being a specially pleasing



DECORATIVE PANEL

W. E. BRYAN

shade of green. If one wishes a light shade of green then the print should be bleached in the ferricyanide solution for five or seven minutes, the longer the print is bleached the lighter the color of the tone of the print.

By substituting acetic acid for the muriatic in the toning-bath, one may obtain a beautiful emerald green. Use two drams of the acetic acid to the eight ounces of water. After the required shade has been reached wash the print for ten minutes and then place it in a hypo-bath one to ten in strength — wash well and dry. If the color seems dull after drying, brush over with artists' fixatif which will brighten the tone without imparting any gloss to the print.

Sepia tones of beautiful quality may be obtained on gaslight prints by sulphide toning, directions for which have appeared in our pages, but the most permanent and those most nearly approaching the water-color sepia are produced by

SECOND PRIZE  
DECORATIVE TREATMENT  
OF TREES

toning with platinum. Make up two solutions which may be prepared in larger quantities and used as stock-solutions.

No. 1	Potassium oxalate . . . . .	1 ounce
	Mercuric chloride . . . . .	40 grains
	Potassium citrate . . . . .	60 "
	Citric acid . . . . .	1 dram
	Water . . . . .	7 ounces
No. 2	Potassium chloroplatinitite . . . . .	7 grains
	Muriatic acid . . . . .	7 "
	Water . . . . .	6 ounces

When ready to use take three and one-half ounces of No. 1, and three ounces of No. 2. The toning takes place quickly and is one of the most permanent of shades. When the print is dry, if the color does not seem to be deep enough, place it for two or three minutes in a solution of sodium carbonate. Wash well and dry. Use the fixatif if the print seems dull, which is not often.

HONORABLE MENTION  
DECORATIVE TREATMENT  
OF TREES



SUMAC

C. W. CHRISTIANSEN

Sometimes for decorative purposes a crimson tone is very effective. This would seem to be impossible to obtain on any but pigmented prints, but if one has a print toned to a sepia color by sulphide toning, it can be changed to a crimson by retoning it with gold. This is quite an interesting experiment to make, even if one does not care to make a great quantity of prints in this color. The formula is as follows:

Gold chloride..... . . . . . 4 grains  
Ammonium sulphocyanide..... . . . . 40 " "  
Water..... . . . . . 8 ounces  
When thoroughly dissolved add two-thirds of a dram of muriatic acid and 40 grains of sodium chloride. All chemicals in any formula should be mixed in the order given. The toning takes a little time — depending on the rapidity with which the gold acts. The print may be left in



BEECHES

G. H. TRUMAN

## THIRD PRIZE

## DECORATIVE TREATMENT OF TREES

the solution an hour, if necessary, though the toning is usually complete in from ten to thirty minutes. Wash for about fifteen minutes, as prolonged washing destroys or weakens the

color, which, however, is permanent when the print is dry.

The successful result of the toning depends entirely on the nature of the print. A print that has been over-exposed and must be taken from the developer to prevent over-developing or fogging, will never make anything but a weak print. A print, however, which has been correctly exposed and which builds up the image gradually with good gradations of lights and shadows, may be toned by any of the processes mentioned and will make a beautiful print.

In another number more formulae will be given, for there is really no limit to the tones which one may obtain on his gaslight prints — tones which may be said to rival the pigmented papers.

## A Matter of Labels

THE editor wonders if the darkrooms of our Guild members were inspected, how many would be found in "apple-pie order," a place for everything and everything in its place. Possibly many are not so fortunate as to have a darkroom, if not then the next best thing for the storing of one's apparatus is a cupboard, and if even the cupboard is lacking then two wooden boxes set on end will answer, with shelves fitted in place to accommodate both bottles and trays.

If it is the box which must be our storeroom then one box should hold the apparatus, all the trays, each in its proper place, the measures, etc., etc. The other box should be devoted to chemicals and one shelf should contain bottles containing stock-solutions, and the other the chemicals which are used in making up solutions. Now if one is clever in selecting bottles he will use square bottles for his developing-solutions and round ones for the toning, or vice versa. He will then make no mistake in taking a bottle from his cupboard, for the sense of touch will at once inform him which sort of solution he holds.

If one has a collection of chemicals — and one who does a great deal of work always has more or less — then each one must be labeled, and labeled so plainly that it is an easy matter to read it. One of the best ways to label bottles is to cut strips of paper long enough to go around the bottles and overlap slightly. They will stay in place ten times as long as an ordinary label pasted on one side of the bottle. The best ink for labeling bottles containing liquids is waterproof ink which costs 25 cents a bottle and will withstand the action of most chemicals and is affected seriously only by acids.

In writing labels they should be uniformly arranged. If one is labeling bottles containing metals, the metal should be written first and the acid second, as for example, gold chloride, copper chloride, silver nitrate, uranium nitrate, etc., while the acids should have the name first as citric acid, oxalic acid, muriatic acid, etc. A bottle containing a solution mixed ready for use should have the formula as well as the name written on the label. If it is a stock-solution then

the formula should be written and also the quantity to use with a certain quantity of water. Such a method saves not only time, but if a solution is getting low one has the formula at hand to renew or to mix again if one mixes his own solutions.

To preserve the labels for a longer time they may be brushed over with celluloid varnish. If a label becomes loose on a bottle it should be pasted on again at once. A little neglect of this kind is often expensive in the end.

Above all things the labels should be written legibly and in characters large enough to be easily read.

A method and system in one's work, no matter what kind, saves many minutes of time; and time is well worth saving, for time is money.

#### Red Tones on P. O. P.

By the means of the gum-bichromate process or by any of the pigment-coated papers one may obtain that pleasing tone called artists' red chalk. To obtain it on printing-out paper also is not an unattainable affair. The toning-solution to produce this result is made as follows:

Ammonium sulphocyanide .....	20 grains
Potassium iodide .....	6 "
Gold chloride.....	1 "
Water.....	8 ounces

The prints must be well washed to clean them of the free silver, then they are placed in the toning-bath and left until they reach the desired color. If several prints are toned at once they should be changed occasionally to ensure even toning. The prints may be left in the bath an hour if the color is not reached before that time. After toning rinse and fix the prints in a weak bath of hypo, an ounce to sixteen of water. Wash for twenty minutes, then dry. If printing-out paper is washed too long the gelatine is apt to soften and cause deterioration of the prints.

#### A New Use for the Camera

MORE and more useful applications of photography are suggesting themselves every day. Its value to detect over-speeding of automobiles has already been tested in the courts, and now the announcement is made that the German police are to be provided with cameras in order to obtain evidence against disturbers of the peace. Such a course is undoubtedly excellent during the day, but we wonder what these officers will do at night when most disturbances occur and when there is the greatest need of securing evidence of many sorts of lawlessness.

#### How to Send Stamps

MEMBERS are requested not to send postage stamps loosely placed in the envelope either before or after the insertion of the letter. In extracting the letter, the stamp remains in the envelope unless the recipient takes care to look into the envelope. Some thoughtless persons take a number of stamps and fold them so that the backs shall come together, which is not so



BIRCHES

D. E. JONES

HONORABLE MENTION

DECORATIVE TREATMENT OF TREES

bad as to have the backs cover the face. If the letter happens to be in a warm place during transit, the stamps become glued together and must be soaked apart by the recipient. The proper way is to moisten a small place in the center of the stamp and attach it to an upper corner of the front page of the letter. Or, if there is a number of stamps, they can be safely enclosed in paraffine paper which prevents them from sticking.

## The Round Robin Guild Monthly Competitions

Closing the last day of every month.

Address all prints for competition to  
PHOTO-ERA, The Round Robin Guild Com-  
petition, 383 Boylston Street, Boston, U.S.A.

### Prizes

*First Prize: Value \$10.00.*

*Second Prize: Value \$5.00.*

*Third Prize: Value \$2.50.*

*Honorable Mention:* Those whose work is deemed worthy of reproduction with the prize-winning picture, or in later issues, will be given Honorable Mention.

Prizes may be chosen by the winner, and will be awarded in books, magazines, enlargements, mounts, photographic materials or any article of a photographic or art nature which can be bought for the amount of the prize won.

### Rules

1. These competitions are free and open to all photographers, whether or not subscribers to PHOTO-ERA.

2. As many prints as desired, in any medium except blue-print, may be entered, but they must represent the unaided work of the competitor, and must be artistically mounted.

3. The right is reserved to withhold from the competitions all prints not up to the PHOTO-ERA standard.

4. A package of prints will not be considered eligible unless accompanied by return-postage at the rate of one cent for each two ounces or fraction.

5. Each print entered must bear the maker's name, address, Guild-number, the title of the picture and the month in which the competition occurs, and should be accompanied by a letter SENT SEPARATELY, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.

6. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA. If suitable, they will be reproduced, full credit in each case being given to the maker.

### Subjects for Competition

May — "Sunlight and Shadow." Closes June 30.

June — "Landscapes with Figures." Closes July 31.

July — "Marines." Closes August 31.  
August — "In the Country." Closes September 30.

September — "General." Closes October 31.  
October — "Scenic Beauties of America."  
Closes November 30.

November — "Group Portraits." Closes De-  
cember 31.

December — "Flashlights." Closes January 31.

### Awards—Decorative Treatment of Trees

*First Prize: Karl F. Struss.*

*Second Prize: Ward E. Bryan.*

*Third Prize: G. Harrison Truman.*

*Honorable Mention: Donald Grey, D. Edward Jones, Edward K. Humphrey, Ralph Burwell, C. W. Christiansen.*

### Sending Photographs by Mail

THE editor of PHOTO-ERA has often urged contributors to the Guild contests to pack their prints in such a way that they may be sent safely through the mails. In most cases this has been done, but there are still those who either use a flexible corrugated board, or else a convenient, but worthless, mailing-device. This latter answers very well for small sizes, but is not practical for pictures above 6½ x 8½. Pictures sent in these stiff mailing-envelopes are often received in a damaged condition, which naturally prevents their reproduction in the magazine.

The directions so often given in PHOTO-ERA of safely mailing prints are herewith repeated.

"Prints should first be wrapped in soft paper, and then placed between two pieces of cellular board—the kind which is covered on both sides—with the corrugations running in opposite directions."

Our chief editor, Mr. French, has frequently suggested that the makers of mailing-devices for photographs reinforce them with a piece of cellular board, with the cells running in opposite directions, thus making the device firm and staunch. He was told that this would necessitate a great increase in the cost of the mailing-envelope. This may be true in a limited sense, but Mr. French feels that every Guilder would be willing to pay 25% or even 33½% more for his mailing-envelope rather than to have his prints damaged in transmission. He feels sure that some day an enterprising firm will put a safe mailing-device on the market.

Until that time comes, our Guilders are asked to take heed to the safe wrapping of their prints. They are also asked to put full name and address on the back of every print submitted. This is quite necessary for it is not an easy matter to locate letters always when the number of prints received runs up into the hundreds. In a recent contest some prints were received with just the name and no address. The names were looked up in the index of the Guild, but not found among the members. Mark each print carefully, wrap the package securely and thus safeguard against both loss and breakage.

### A Word to Competitors

WE understand that many amateurs preparing to send pictures to our monthly prize-contest are having their prints made by professionals, either for reasons of convenience or economy. Such pictures will be barred. Those participating are required to do all the work themselves, from the exposing of the plate or film to the completed print—contact or enlargement.

## BEGINNERS' COLUMN

### Quarterly Contests for Beginners

In these contests all Guild members are eligible EXCEPT those who have received Guild prizes in the past. Aside from this restriction, the rules which govern the monthly competitions will be in force here and the prizes will be payable in the same manner.

All prints submitted, except prize-winners, will be returned if postage is sent.

#### Prizes

*First Prize:* Value \$10.00.

*Second Prize:* Value \$5.00.

*Third Prize:* Value \$2.50.

*Honorable Mention:* Those whose work is worthy will be given Honorable Mention.

### Subjects for Competition

SOUVENIR-PHOTOGRAPHS—CLOSES JULY 15, 1908

It is intended that this competition shall include photographs made as souvenirs while away from home, whether in one's own country or abroad, or only on a short vacation-trip. Thus they will portray objects of historic or other interest, and incidents worthy to be recorded. Figures may or may not be included.

FAVORITE PETS—CLOSES OCT. 15, 1910

The subject of this competition seems self-explanatory, consisting, as it does, of dogs, rats, monkeys, rabbits, birds, etc., and tamed wild animals.

AUTUMN PICTURES—CLOSES JAN. 16, 1911

Harvest-scenes with or without figures and pictures in which there are fallen leaves, shadows and mist are eligible.

### Answers to Correspondents

Readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.

C. C. ECKENROD—**Printing from a Cracked Negative.** If the glass of your negative has just one clean break across it, it will not be necessary to transfer the film to a whole glass. Take a clean glass the size of the negative, put a little Canada balsam at the corners, lay the negative on it glass-side down and press into place. To print, place the glasses in the frame, and suspend the latter from some projection and keep it moving during the printing. The constant changing of the shadow made by the break does not allow it to remain long enough in one place to leave an impression. Directions for trans-

ferring film to a whole glass will be found in PHOTO-ERA for March, 1908.

GEORGE A. BUCKLIN, JR.—**Reduction-Camera.** A reduction-camera for making lantern-slides from 4 x 5 negatives may be bought for \$5.00. It is very simple in construction, has a fixed focus and consequently produces sharp definition.

EMIL GROSS.—**Commercial Photography.** Those who make the photographing of machinery, silver-ware, china, etc., a business usually do the work by flashlight instead of daylight. If only a single piece is to be photographed, a daylight picture would be the simplest.

ED. HUMPHREY.—**Art Dictionaries.** There are several dictionaries of artists and art-terms. Adeline's is one, but perhaps as good a dictionary of this kind as is published is by Mollett. They are all illustrated.

O. A. SHARPLESS.—**Mounting and Varnishing.** Such a varnish as you describe for coating the backs of prints would not be practical. The mounting-tissue is much simpler and is very quickly and easily managed. The application of alcohol to varnish would have the effect of removing the varnish.

F. G. L.—**Reducing Prints.** To reduce your over-printed photographs use ammonium persulphate, five grains to an ounce of water. If the prints are too dark and you have not toned them the reduction may be done first, but if they are toned, then use the reducer, wash the prints well, place them for a minute or two in the fixing-bath, then wash again. The ammonium persulphate must be washed out of the print or else in time it will turn yellow.

ANNE R. H.—**Using Opaque in Printing.** Use Ghion's opaque for blocking out undesirable backgrounds. This is a water-color paint and may be washed from the glass at any time. It is also very useful for coating the parts of a negative when one desires to make a print from only a small area of the plate. Lay a piece of paper on the glass-side of the negative the size and shape of the part to be printed from. A bit of paste will hold it in place. Then paint the glass over with the opaque mixture, remove the piece of paper and you have the necessary opening for printing.

WILLIAM NELSON.—**Clouds in Photographs.** You will find in the July, 1908 PHOTO-ERA detailed directions for printing clouds into negatives. Do not try backing your plates. Use the non-halation plates if you are photographing subjects which require a backed plate. The meaning of orthochromatic is "right color." The plates are sensitized with an emulsion which reproduces the right tone-value of the colors photographed.

FRED. DEAN.—**Brightening Prints.** Your platinum prints which seem to have a sunken look may be brightened by brushing them over with artists' fixatif. This will not impart a gloss to the prints, but will bring up the detail and lighten the shadows immensely. It will not injure the print. Mercuric chloride added to the

developer will give warm brown tones on the black platinum. Your formula is a good one and will give you pleasing tones. The prints must be well washed after clearing in the acid bath.

F. M. NEIKISH.—**Lenses.** The lens about which you ask is a very good one, but a rapid rectilinear is advisable for the use you desire to make of it. Have a telephoto-attachment and then you can photograph the wild birds and small animals at a much greater distance and with less care in making the pictures. Please send some of your bird-pictures to PHOTO-ERA.

MORRIS T.—**Citric and Acetic Acid.** Citric acid and acetic acid are used in photographic solutions for the same result. Citric is considered better than the acetic acid. A bromide print developed in a ferrous oxalate developer needs to be subjected to an acetic acid bath to remove all traces of the iron. In handling any acids be careful not to let them touch the skin as some of them burn very deeply.

K. L. I. **Old Platinum Developer.** Do not throw away your platinum developer after developing your prints. Turn it into a bottle and the precipitation will settle at the bottom and the liquid be clear. It can then be used again, and often the used developer will give better results than the fresh. This is particularly the case with the sepia-developed platinums.

S. D. BELDEN.—**Preventing Yellow Prints.** To prevent the yellowing of your prints when toned in a combined bath, place them before toning in a solution made of one-half ounce of sodium sulphite to twenty ounces of water. Leave them in the bath for ten minutes, wash thoroughly and then tone. Glossy prints are the best for reproduction, but they are not considered artistic. Use rough paper for your negatives with broad masses of lights and shadows. You will find the gaslight papers admirable for most classes of negatives. It is necessary only that you choose the kind sensitized for the quality of the negative which you are to use.

ROBERT E.—Make up the hypo-bath in the usual strength, 1 to 4, and to every four ounces of solution add  $\frac{1}{4}$  ounce of acid sodium sulphite and 30 drops of hydrochloric acid. The sulphite may be first dissolved in a little water, or it may be put directly into the hypo-solution. Stir well so that the ingredients are well combined.

HELEN FENTON.—**Ortol Developer.** A formula for ortol developer is as follows: Solution 1. Ortol, 60 grains; potassium metabisulphite, 15 grains; water, 5 ounces. Solution 2. Sodium sulphite, 1 ounce; potassium carbonate,  $\frac{1}{4}$  ounce; potassium bromide, 5 grains; water, 5 ounces. To use, take equal parts of both solutions. For soft negatives reduce by the addition of an ounce of water to two of the combined solutions.

G. R. T.—**Lenses for Architectural Work.** A rapid rectilinear lens is the one you should choose for architectural work, and it should also be corrected for spherical aberration so that a large stop may be used if necessary

and still secure perfect definition. If you plan to make this a specialty, as you say, then it is wise to get the best instrument adapted to the purpose, and an anastigmat is advisable. Where the building must be taken at close range one needs a wide-angle lens.

EDWARD S.—**Iridescent Stains.** The iridescent stain on your negative may be removed by rubbing it with a piece of absorbent cotton dipped in alcohol. Catechol is another name for pyrocatechin. For a formula see answer to J. R. Montpeltit. Corrosive sublimate is another name for bichloride of mercury. It is used to intensify negatives. It is very poisonous and should be handled with great care.

C. L. DEANE.—**Flat Negatives.** Flatness in a negative means that the film has an almost uniform density. The print made from such a negative has no contrast between highlights and shadows. The print which you enclose is from an over-exposed negative. It would be almost impossible to make it into a good printer. Better throw it away and make a new one.

JULIA S. D.—**Air-Bells.**—The round spots on your negative which are of less density than the rest of the plate are caused by air-bubbles forming on the plate when it was put into the developer, thus preventing the solution reaching the film. A plate should be slipped into the solution quickly and the tray rocked to and fro at once to ensure an even application of the developer. A wide camel's-hair brush—first cleansed in cold water—gently passed over the film soon after the developer is poured over the plate, will remove air-bells most effectually.

PAUL EDDINGFIELD, MYRON BEACH, DELOS BROWN AND OTHERS.—**Toning Gaslight Prints.** In the present number of the Guild department you will find directions for obtaining green and other tones on gaslight paper. The hypo-alum process of toning has been given in previous numbers. Other methods are much quicker and to be preferred.

C. D. F.—**Supplementary Lenses.** A "magnifying-lens" is what is called a supplementary lens, a thin convex lens placed in front of the camera-lens and which enables one to place the camera nearer the object to be photographed and thus get a large image. A lens of this kind is very inexpensive and adds much to the scope of one's lens. A portrait-attachment is very desirable.

S. L. P.—**Faded Prints.** The probable reason of the fading of your prints is the presence of hypo in the paper. The prints were evidently not washed long enough to eliminate the hypo. No; it is not a good plan to send unmounted prints to a prize-competition. A print mounted in an artistic and simple manner always makes a better impression.

WILLIAM E.—**Varnish.** Celluloid varnish is a commercial article, but a good substitute for it may be made by dissolving one ounce of gold-size, such as japanners use, in two ounces of benzole. Developer for lantern-slides. Pyro developer will give a warm black for lantern-

slides; but there is danger of staining, so that your metol-hydrochinon is to be preferred. A print-meter is not necessary, though it is quite convenient.

**HARRIET L.—Rodinal in the Tank.** Rodinal is a good developer for tank-development, and a dram in ten ounces of water will be enough to develop plates fully in half an hour. Rodinal comes in a concentrated solution, and needs to be well diluted. It gives plates of fine printing-quality.

**EMIL G.—Binding Lantern-Slides.** If you have so much difficulty in binding your lantern-slides, why not get a lantern-slide vise which holds the slide and cover-glass firmly and allows of turning it around to bind the different sides. By the use of the vise one does not have to touch the slide at all, but has both hands free to manage the binding.

**BERTHA BARNARD.—Fixing-Bath.** Use an acid fixing-bath for your gaslight prints which may be made according to a formula published in this department, or one may buy it prepared ready for dissolving. The cost of a box sufficient to make 32 ounces of solution is 15 cents.

**D. N. S.—Developing-Powders.** Developing-powders are very convenient for use when one is traveling, and you may mix them yourself or buy them ready prepared. You will find all kinds of developing-agents put up in powders so you will simply have to select the one you are in the habit of using. If you wish to mix your own powders you will find directions in the September, 1905, PHOTO-ERA. You say you have a file of the magazines.

**CAROL M.—Coloring Photographs.** Yes, you will find that the Japanese water-colors work well for tinting prints. They cost 75 cents for a set. In using these colors do not put them on heavily. The color should be simply a transparent wash put over the print. It requires a very skillful worker to make a success of tinting or coloring photographs.

**M. B. LANE.—Local Reduction.** Do not use vaseline to cover parts of a plate which is not to be acted on by the reducer used locally. Brush the parts over with glycerine which is soluble in water and will wash off easily. The vaseline, being greasy, will require soap and water to remove.

**J. R. MONTEPLAT.—Pyrocatechin.** Pyrocatechin is a white crystalline powder quickly soluble in water. As a developer it is free from stain, and does not have a tendency to fog the plate even when the development is much prolonged. A formula which is excellent is made of sodium sulphite,  $\frac{1}{2}$  ounce; pyrocatechin, 40 grains; caustic soda, 25 grains; water, 4 ounces. For use, take one ounce of the solution to three ounces of water. The image appears in about ten seconds and development is complete at the end of three minutes with a normally-exposed plate.

**GEORGE INGALLS.—Stained Negatives.** The reason for the stain appearing on your negatives after some months is due to improper fix-

ing. The hypo must be strong enough to dissolve out the compound formed by the hypo and the unused silver salts. If not it forms a compound which in time will destroy the negative. Use an ounce of hypo to four of water for fixing plates.

**H. C. BULLARD.—Paper to Sensitize.** All-jonge and Michallet papers may be had of any large dealer in artists' materials. If your dealer does not carry the paper have him order for you from New York or Boston.

**RALPH NEWMAN.—Printing from Thin Negatives.** It would be better to intensify your negatives which are so thin. You could retard the printing by placing the printing-frame in the shade, and still more by putting it in a wooden box perhaps a foot in depth and setting the box in the shade.

**MRS. J. W. NIETSCHL.—Reducing Prints.** Prints made on gaslight paper may be reduced with the same chemicals as are used for reducing negatives. An article on the subject will be given in detail in an early number.

**A. KALISH.** — A good way to mount prints in a soft-leaved album is to cut corners to slip the prints under after the manner of a postcard album. You can also attach the prints by means of gummed corners made especially for mounting prints. Still another way is to get the small wafers which are gummed on both sides and use one at each corner of the print.

**JOHN C. S.—Reducing Dark Prints.** To reduce your dark prints make up ten per cent solutions of ammonium sulphocyanide and potassium ferricyanide. To each ounce of water use one hundred minims of the sulphocyanide and ten minims of the ferricyanide solutions. This is to be used after the prints are toned and fixed. When sufficiently reduced wash well.

### The Beam of Sunlight

A MISCHIEF-LOVING youth will sometimes stand at an upper window and with a hand-mirror will direct a beam of sunlight into the eyes of the way-farer on the other side of the road, to the considerable discomfort of the victim, who, provided that the mirror is deftly handled, has no idea whence his discomfort comes. A bright beam of sunlight, similarly reflected, has many photographic uses, as not only may dark recesses be illuminated in this way, but glints of light may be introduced into otherwise flat subjects. Although the dash of sunlight, as reflected from a mirror, would be far too pronounced in its effect to be allowable in ordinary portraiture, there are cases in which a beam of semi-diffused light from the sky, as reflected from a small mirror held in the hand, may give sparkle and character to an indoor portrait: a sparkle of a kind in no sense to be realised by the usual white reflector of the professional photographer. Often, also, the mirror is of considerable service when a bust or piece of sculpture is to be photographed. In printing, too, a piece of looking-glass the size of a sixpence may do good service, the printing-frame being in the shade, but so

plied that a pencil-like beam of bright light may be made to play on any part that requires emphasis.—*The Amateur Photographer*.

#### Motion-Pictures of Microscopic Objects

No object smaller in diameter than eight millionths of an inch can be seen in an ordinary microscope, states the *Saturday Evening Post*. This limitation is imposed not only by magnifying-power, but also by the usual method of literally plunging the object in light.

A German named Richard Zsigmondy, whose particular study at the time happened to be the peculiarities of ruby glass — a deep red but perfectly transparent variety made by melting together glass and metallic gold — conceived the idea of illuminating the microscopic object from the side. The effect produced was that of a sunbeam falling through a crevice into a dark room and revealing millions of dust particles totally invisible in broad daylight. In other words, he saw the gold distributed through the

glass in infinitely small particles, like stars dancing against a black sky. The principle was later embodied in an instrument called the ultra microscope.

Doctor Commandon, a distinguished French scientist, has harnessed the ultra microscope to the moving-picture machine, with the result that he is enabled to project upon the screen the struggle of microscopic organisms for life. The French Academy of Sciences was recently entertained by him with the battle of white and red corpuscles in blood. The pictures flashed past at the rate of nine hundred and sixty a minute. Each film view — itself a highly-magnified image of a corpuscle — was enlarged on the screen to twenty thousand diameters, which means that an inch was equivalent in height to a six-story house. Perhaps, as a result of this invention, nickelodeons will delight their blasé patrons with lively pictures of diphtheria germs succumbing to antitoxins, and typhoid bacteria wriggling in stagnant water.

### Plate-Speeds for Exposure-Guide on Opposite Page

#### Class 1/3

Lumière Sigma  
Lumière Non-Halation Sigma

#### Class 1/2

Barnet Super-Speed Ortho  
Ilford Monarch

#### Class 3/4

Barnet Red Seal  
Ilford Zenith  
Imperial Flashlight

#### Class 1

American  
Ansco Film, N. C. and Vidil  
Barnet Extra Rapid  
Barnet Ortho Extra Rapid  
Barnet Studio  
Cramer Crown  
Cramer Crown Non-Halation  
Cramer Instantaneous Iso  
Cramer Inst. Iso Non-Halation  
Cramer Isonon  
Cramer Trichromatic  
Ensign Film  
Hammer Special Extra Fast  
Imperial Special Sensitive  
Imperial Non-Filter  
Imperial Orthochrome Special  
Sensitive  
Kodak N. C. Film  
Kodoid  
Lumière Film  
Magnet  
Premo Film Pack  
Seed Gilt Edge 27

Standard Imperial Portrait

Standard Polychrome  
Stanley Regular  
Vulcan

Wellington Extra Speedy

#### Class 1 1/4

Cramer Banner X  
Cramer Banner X Non-Hala-  
tion

Eastman Extra Rapid  
Hammer Extra Fast

Hammer Extra Fast Ortho

Hammer Non-Halation  
Hammer Non-Halation Ortho

Seed 26x

Seed C. Ortho

Seed L. Ortho

Seed Non-Halation

Seed Non-Halation Ortho

Standard Extra

Standard Orthonon

Wellington Speedy

Wellington Film

#### Class 1 1/2

Lumière Ortho A

Lumière Ortho B

#### Class 2

Cramer Medium Iso  
Cramer Medium Iso Non-Hala-  
tion

Ilford Rapid Chromatic

Ilford Special Rapid

Imperial Special Rapid

Wellington Iso Speedy

#### Class 2 1/2

Barnet Medium  
Barnet Ortho Medium  
Cramer Anchor  
Hammer Fast

Seed 23  
Lumière Panchromat

#### Class 3

Wellington Landscape

#### Class 4

Stanley Commercial  
Ilford Chromatic  
Ilford Empress

#### Class 5

Cramer Commercial  
Hammer Slow  
Hammer Slow Ortho  
Wellington Ortho Process

#### Class 8

Cramer Slow Iso  
Cramer Slow Iso Non-Hala-  
tion  
Ilford Ordinary

#### Class 12

Cramer Contrast  
Ilford Half-Tone  
Seed Process

#### Class 100

Lumière Autochrome

# The Round Robin Guild Exposure-Guide For June

COMPILED BY PHIL M. RILEY

UNDER this caption a brief table of exposures will be given in each issue for the guidance of Guild members during the following month. While the figures are indicative only, they will be found approximately accurate for the assumed conditions they have been applied to. If the exposure-times given are not considered imperative, but as suggestions, possibly to be varied slightly at the discretion of the worker, these tables will prove of great benefit to all who use them.

**The table below gives the exposures required by the different subjects and plates mentioned during the month of June on any fine day between 9 A.M. and 3 P.M. when the sun is shining brightly and the lens is working at f/8, or U. S. No. 4.**

Double the exposure if the sun is obscured but the light is fairly bright, or if f/11, U. S. No. 8, is used; also from 7 to 8 A.M. and 4 to 5 P.M. Treble it when the light is rather dull. Increase it four times when there are heavy clouds and a very dull light, or if f/16, U. S. No. 16, is used. For f/5, 6, U. S. No. 2, give half. From 8 to 9 A.M. or 3 to 4 P.M. increase the exposure one-half. Increase it  $\frac{1}{2}$  times from 6 to 7 A.M. and 5 to 6 P.M. From 5 to 6 A.M. and 6 to 7 P.M. increase it five times.

SUBJECTS	PLATES (List on Opposite Page)											
	Class $\frac{3}{2}$	Class 1	Class $1\frac{1}{4}$	Class $1\frac{1}{2}$	Class 2	Class $2\frac{1}{2}$	Class 4	Class 5	Class 6	Class 8	Class 12	Class 100
Studies of sky and fleecy clouds .....	1/1600	1/800	1/640	1/512	1/400	1/320	1/200	1/160	1/128	1/100	1/64	1/8
Open views of sea and sky; very distant landscapes; studies of rather heavy clouds .....	1/800	1/400	1/320	1/256	1/200	1/160	1/100	1/80	1/64	1/50	1/32	1/4
Open landscapes without foreground; open beach, harbor and shipping-scenes; yachts under sail; very light-colored objects; studies of dark clouds	1/400	1/200	1/160	1/128	1/100	1/80	1/50	1/40	1/32	1/25	1/16	1/2
Average landscapes with light foreground; river scenes; figure-studies in the open; light-colored buildings and monuments; wet street-scenes .....	1/200	1/100	1/80	1/64	1/50	1/40	1/25	1/20	1/16	1/12	1/8	1
Landscapes with medium foreground; landscapes in fog or mist; buildings showing both sunny and shady sides; well-lighted street-scenes; persons, animals and moving-objects at least thirty feet away .....	1/100	1/50	1/40	1/32	1/25	1/20	1/12	1/10	1/8	1/6	1/4	2
Landscapes with heavy foreground; buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red brick buildings and other dark objects; groups outdoors .....	1/50	1/25	1/20	1/16	1/12	1/10	1/6	1/5	1/4	1/3	1/2	4
Portraits outdoors in the shade; very dark near objects .....	1/25	1/12	1/10	1/8	1/6	1/5	1/3	2/5	1/2	2/3	1	8
Badly-lighted river-banks, ravines, glades and under the trees .....	1/12	1/6	1/5	1/4	1/3	2/5	2/3	4/5	1	1 1/3	2	16
Average indoor portraits in well-lighted room, light surroundings, big window and white reflector .....	1/4	1/2	3/5	3/4	1	1 1/5	2	2 2/5	3	4	6	48

In order to make the exposures as accurate as possible after the final multiplications, all fractions accompanying whole numbers have been allowed to remain in this table, except when the whole numbers were so large that fractions might be disregarded as negligible. In such cases approximate figures have been given. Shutters will not always give the exact exposure required, but the nearest speed may be used if it is approximately correct. When the nearest speed is too short open the diaphragm a little, when too long, close it a little. Let the exposure be a little too long rather than too short, and the more contrast there is in the subject the more it may be over-timed. Over-exposure, unless excessive, can be controlled in deve'opment, but under-exposure will not give a satisfactory negative.

## OUR ILLUSTRATIONS

BOSTON wins and Boston loses in the cover design this month. Although the ball rests in Boston's "mit" the player is in mid-air while his opponent's hand lies on the bag. It is in such close plays that an expert photographer often furnishes indisputable proof if the umpire's decision is questioned. Boston lost the play, but we take pride that a local photographer, F. M. Chapman, of the *Boston Herald*, made this exceptionally successful example of high-speed work. Although many similar pictures serve their purpose, relatively few are as pleasing to look at, show such good composition or convey any real sense of motion. All of these qualities are seen in our cover-design, which is a high compliment to Mr. Chapman's skill and alertness. Data: Goerz Dagor lens No. 3, 8½-inch focus, f/6.8; 1/800 second exposure. Reproduced through the courtesy of C. P. Goerz American Optical Co.

Striking and unusual in pose is our frontispiece, by Charles Hallan, and the whole effect is made more pronounced by the vignette method of treatment, giving a decorative and sketchy style. It is a realistic portrait, such as one seeks for a likeness, yet soft and delicate in its values and possessing beautiful stereoscopic effect. Undoubtedly the table is too strong, yet it might seem inappropriate if otherwise treated. Data: Steinheil Unofocal lens No. 7, 15½-inch focus, 11 x 14 plate.

Although Mr. F. J. Mortimer, editor of *The Amateur Photographer*, is best known for his superb marines, he makes many exceedingly beautiful landscapes, of which "A Landscape in Holland," on page 251, is an example. Particularly interesting for variety in spacing, it is also notable for its sense of "openness." This is due chiefly to the low horizon and the sky-space above those magnificent rolling clouds, although the long tree-trunks without branches do their share. The plowman in a good position adds just the right touch of subordinate human interest. No data are available except that the print is a bromoil.

"Trafalgar Square," one of the most un-picturesque in London, has been photographed in many ways, but not to our knowledge quite as shown on page 253. Mr. Wilfred A. French has secured an attractive view of this well-known spot which is new to most Americans who are familiar with London. Data: Voigtlander & Sohn's Collinear lens, Series III, 5½-inch focus, f/6; Sept. 5, 1909, 1 p. m., hazy; 1/50 second; Weno Hawkeye 3½ x 4½; Eastman N. C. Film; pyro-meto tank development; enlargement on Wellington bromide paper.

On page 254 is reproduced a decorative and attractive "Autumn Sunset," by William F. Lambrecht, which displays good spacing and

variety of values in the clouds. Data: Cooke lens, Series III, f/5.6; Seed 27 plate 4 x 5; Graflex camera; October, 4:30 P. M.; 1/110 second exposure; developed with pyro in an Eastman Plate-Tank; Special Velvet Velox print.

"The Creek in Summer," by Edmund H. Royce, on page 255, displays that same quality of "openness," already referred to, though here it is due more to subject than to treatment. This print is notable for its short scale of tones; there is no absolute black or white and no wire-sharpness of definition. The composition is excellent and the successive planes well rendered. Note the importance of the clouds in this picture and the radiation of their suggested lines together with those of the creek, all of which lead the eye to that point of reeds and create the desire to know what is beyond. This element of mystery in a picture does much to hold one's interest in it. Data: F. P. Kodak No. 3, 3½ x 4½; R. R. lens, 5-inch focus, f/8; June, 10 A. M., sunlight; 1/25 second exposure, Kodak film, edinol developer; enlarged on Special Carbon Velox.

Strong character vigorously portrayed is seen in "Wm. Strang, Esq.," by J. Craig Annan, on page 257. A harsh lighting and absence of detail on the shadow side has emphasized the strength of the rugged features; lack of retouching has retained the character wrinkles; short exposure has given depth to the eyes and distinction to the high brow. The latter idea has been carried too far, however, at the expense of life in the eyes, which is essential in such a character. Another unfortunate thing is the cuff, which is much too high in key and detracts from the face. Data: Glycerine-developed Platino-type, re-photographed and printed in carbon on Japanese vellum.

A print which has caused much comment in California because of its remarkable combination of news-interest and beauty is that of a Curtiss bi-plane in mid-air, by Harold A. Taylor, on page 259. It is an unusual picture and cannot be judged by ordinary standards. More a wonderful cloudstudy than anything else, the bi-plane is so well placed in the space that it attracts attention at once in spite of its small size. The figure of a man, silhouetted against the sky is a happy thought, though quite unconventional. Data: 5 x 7 Graflex, Cooke lens, Series III; Standard Extra plate; January, 5:30 P. M.; sepia enlargement.

All of the Swiss photographs by W. A. Rowley on pages 260 to 264 inclusive are excellent. They are of the record type, particularly adapted to explanation as illustrations accompanying an article of travel. Far more than this, while not pictorial in the usually applied sense of the term, they show a good knowledge of composition, photographic technique and an apprecia-

tion of atmospheric quality. The result is that these pictures, although small, are in every way interesting, thoroughly pleasing and truly artistic. Particularly noteworthy are the cloud-effects in the mountain scenes and the figures which give human interest in many of the shorter views. In all of the latter instances there is no visible consciousness that the eye of the camera is near, thus preserving spontaneity, while the mere fact that the figures are included is of assistance in showing the relative sizes of things in this country of vast valleys and giant peaks.

On page 265 Mr. Rowley describes fully the conditions of light he met with and the average exposures given in different localities and for various sorts of views. All the exposures were made with a Kodak on Eastman film, and the prints reproduced are on Special Portrait Velox.

### The Monthly Competition

No Guild competition has proven so conclusively the influence of photography to get people out into the open and create an interest in nature as that devoted to "Decorative Treatment of Trees." The entries were large in number and generally excellent in quality, showing a distinctly increased artistic sense among those regularly competing for PHOTO-ERA prizes.

Karl F. Struss, whose work is very much along Secession lines, was awarded first prize for "Decorative Arrangement," on page 270. The print, although exceedingly beautiful, is, unfortunately, not well adapted to reproduction and the beauty of color and delicate toneradation has been lost. The decorative treatment of the overhanging leaves, however, is clearly seen to be very effective as is the picturesque river-boat on which the sun falls directly. Data: Summer; film-pack; tank-development with rodinal; lens working at f/6.8; exposure calculated with a meter; an enlarged positive was made and from this a contact negative. The print is a home-coated multiple platinum in sepia.

The second prize was given to a very pleasing print, "Decorative Panel," by W. E. Bryan, on page 272. Striking in composition and beautifully spaced, this subject as a whole, and particularly the silhouetted pine itself, will find many admirers. Data: August, sunshine, 4 P.M., 3A Kodak; Eastman film; 1/25 second; B. & L. lens; pyro tank development; enlargement on Red Label Cyke with 3A Kodak; paper developed with ortol-hydro.

Beautiful in its delicacy of tones and repetition of verticals, each in a distinct and separate plane, is G. H. Truman's third-prize print, "Beeches," on page 274. A subject of which one never tires, it is always strong in its appeal of the beech woods, ever so fresh and clean. Data: June, 5 A.M., misty without sun; 8 $\frac{1}{2}$ -inch anastigmat lens, f/11; Polychrome plate; 12 seconds' exposure with a ray-screen; edinol developer; enlargement on Artura Carbon Black.

Among the Honorable Mention prints Donald Grey presents a superb southern scene, "Fairy-

land," on page 271, in which the reflections and the long limb extending across the picture form important parts. The touch of life in the foreground is particularly commendable. Data: 4 x 5 Premo, ordinary lens, f/8; film-pack; 1/2 second exposure; Artura print.

"Sumac" presents a theme not often rendered by photography, and has given C. W. Christiansen material for the excellent print of that name on page 273. Decided limitations for decorative treatment are seen in the subject, but it seems to have been handled intelligently and made the most of. The white clouds are very effective, but the light spot in the bush at the left should have been subdued; it attracts too much notice. Data: 2A Brownie; June, 5 P.M., bright light, Kodak film; pyro developer; enlarged on Monox bromide and an Ozobrome made from that by transfer.

"Birches," by D. E. Jones, on page 275, is superb in subject and atmospheric quality. Birches are usually beautiful in a photograph and as one usually associates them with water, the setting is ideal. Data: June, 9 A.M.; Seed 27 plate; bright sun but smoky; Tabloid Rytol developer; Standard Optical Co. Double Planoscope lens, f/16; 1/8 second exposure; Ingento Roller-Blind shutter; American platinum print.

"On Guard," by G. A. Hollands, on page 288, has its faults and good points. The idea is charming and its human appeal beyond question. The eyes are a little staring and do not at all carry out the spirit of the thing, while the clothes are too chalky and lacking in texture. With a smile on that little face, more exposure and less development, an excellent subject would be the result. No data are available.

### English Spring Magazines

LARGER and larger, better and better, become the special issues of the British photographic magazines. First to reach us was the Empire Number of *The Amateur Photographer*, quickly followed by the Colonial Number of the *British Journal of Photography* and the Bumper Number of *Photography and Focus*. All contain many special illustrated articles about work in every clime, and the vast amount of advertising is an education in itself.

### Photographs in Court

In the famous Russell will case, which was concluded in the East Cambridge, Mass., Probate Court last April, after having lasted six months, photographs of the claimant figured very conspicuously. The judge, George F. Lawton, himself conversant with photographic methods, in his findings referred to the importance of these photographs, as well as to a number of ferrotypes, remarking that the latter are erroneously called "tintypes." He probably knew that the original material consists of thin iron plates heavily japanned in black or in dark brown. Why this species of photograph should be called a "tintype," surpasses comprehension.

# NOTES AND NEWS

Announcements and Reports of Club and Association Meetings, Exhibitions and Conventions  
are solicited for publication

## The National Convention

### THE ANNOUNCEMENTS EPITOMIZED

THE TIME ..... July 12-16  
THE PLACE ..... Milwaukee  
THE WORKERS ..... Members of the P. A. of A.

Second session of The Congress of Photography with delegates present from all the Affiliated State Associations.

Largest and best Exhibition of Photography ever shown. All pictures hung on a vision line, in an Art Gallery, where every picture will show to the best advantage.

Demonstrations and Instructions in all Branches of the Profession by men of international reputation — men who have never before taken an active part in School Work. They will not only show how the sittings are made but show you finished results — in fact, retouch and finish prints in your presence.

An unusually large representation of the Manufacturers and Dealers with all the newest products for the Photographer.

An Exhibition of the latest Inventions of the year, a \$100.00 prize being offered for the most practical idea. These will be demonstrated throughout the week.

A new feature will be an exhibit of Commercial Photography.

A series of Practical Lectures and Talks on Art and Photography by eminent men of the country.

The first Meeting and Exhibition of The Federated Women Photographers of America.

Milwaukee is an ideal place to spend the week during the hot weather and the local photographers and dealers are busy arranging for your entertainment and promise a good time for all.

GET THE HABIT of paying your association dues whether you attend every convention or not. Be a star member. Pay in advance and materially lighten the burden of your treasurer convention week, and save yourself time and annoyance. Remit your dues now and an official receipt, a button and a copy of the Association Annual will be mailed to you.

The Annual this year — and by the way, it will be the most elaborate one the association has ever issued — will be sent only to those who pay their dues for 1910. Do not miss getting a copy.

Arrange your affairs so that you can spend the week with us at Milwaukee and we promise you the most profitable and enjoyable week of your life.

L. A. DOZER,  
Treasurer

Bucyrus, Ohio

## To the Photographers of New England

ONCE more we join hands with Pres. W. F. Oliver to encourage every New England photographer to do his share, small though it may be, to make the 1910 convention the greatest ever.

If you are not a member become one at once. If you are a member then something more than payment of dues is expected of you. Do not fail to exhibit pictures and to attend the convention. Your presence and your representation are wanted and needed.

The officers are working hard to find out just what photographers want and to provide it for them. Give them your suggestions and your support. The Secretary, George H. Hastings, 37 Merrimack Street, Haverhill, Mass., will be glad to hear from you upon any of these topics. Do not hesitate to exhibit prints fearing that you will not get a prize. Come to Boston and compare your own work with that of the prize-winners. It will be an education worth while.

## The Prize List, 1910

### Grand Portrait Class, Open to the World

One picture only, 10 inches one way or larger, no entry fee. Prize, Solid Silver Loving-Cup.

### For P. A. of N. E. Members Only

#### PORTRAIT CLASS,

Three portraits, any size, three prizes.

#### GENRE CLASS (Illustrating every-day life and manners),

Three picture, any size, two prizes.

#### LANDSCAPE CLASS,

Three pictures, any size, two prizes.

#### STATE PORTRAIT CLASS (For individual states only),

Three portraits, any size. Each state, two prizes.

This State Portrait Class is designed to encourage photographers in the smaller studios who do not feel equal to the keen competition associated with the higher classes. Understand, this class offers to Maine, two prizes; New Hampshire two, Vermont two, Massachusetts two, Rhode Island two, Connecticut two, and the Provinces two. Entries in this class do not compete against entries from any other state.

## Exhibitor's Certificate

To every New England photographer contributing pictures to the pictorial exhibit will be given a certificate suitable for framing, showing that his work formed a part of the 1910 P. A. of N. E. collection. This alone should be sufficient inducement to warrant all the trouble and expense of forwarding an exhibit. Send to the Secretary for the rules and regulations.

A superb three-days' program of entertainment and instruction is being prepared, which no photographer can afford to miss. There will be something doing every minute from the opening morning till the late evening of the third day.

Among the most important features may be mentioned a magnificent lecture with lantern-slide illustrations, "With Other Photographers," by Ryland W. Phillips of Philadelphia, a man who is making a success of photography and who is working to make photography a success for others. Two years of tireless effort were required to collect the material for such a presentation. Mr. Phillips has secured lantern-slides of the sky-light room in a large number of the prominent studios of this country, showing the structural arrangement of the room, the accessories, screens and curtains also a subject posed and lighted ready for an exposure to be made. Next, there is projected on the screen a picture printed from the "raw" negative exhibiting the direct resulting portrait; this is followed by still another picture showing the finished portrait production from the same negative, after the photographer has manipulated and modified it to the fulfillment of his artistic conception. While these illustrations are so clear and convincing as scarcely to require explanation, Mr. Phillips' "talk" amplifies with an abundance of information regarding details not incorporated in the views.

J. Hanmer Croughton of Rochester will lecture on "Pictorial Composition in Photographic Portraiture." Mr. Croughton, although not a familiar figure in New England, is well-known as a writer, and has studied in the National School of Art, London; with Thomas Sidney Cooper, a Royal Academician; and in the art-galleries of Italy, Paris and Antwerp, which gives him an excellent fitting as a critic and an exponent of artistic portraiture. His lecture will deal in a simple manner with the fundamental rules governing the making of pictures, treated from a *photographic* standpoint and fully illustrated by enlargements *especially prepared* to remove all mystery. Mr. Croughton will be prepared to give personal comment, either "higher criticism," or in the A. B. C's.

"Advertising as Applied to the Studio," will be an interesting talk by C. H. Claudio of Washington, a well-known writer for the leading magazines in America, and a man who knows photography from the technical, practical and scientific standpoints, as do few others. Gifted with a keenly analytical mind from which the humorous and the ludicrous never escape, Mr. Claudio may well be classed as a lecturer of the "painless" variety who will impart a fund of useful information without becoming tiresome. He will tell just what advertising is and what it is not; the difference between direct and indirect advertising; advertising-schemes versus legitimate work; why photographic advertising so often fails to pay; how to do the kind of advertising that will pay.

## The New York State Convention

THE annual meeting of the P. P. S. of N. Y. took place, April 6, 7 and 8—at the time the May issue of PHOTO-ERA was being printed. This afforded the editor an excellent opportunity to assist at this important event.

The program was carried out, as originally announced, and a great deal of good was accomplished. The splendid hall in the Metropolitan Life Building answered admirably every purpose. The various talks, covering a wide range of practical matters, by J. E. Mock, Pirie MacDonald, A. F. Sheldon, Mrs. Floyd E. Baker (of the Alman Studio), Justin McCarthy, Jr., (advertising-manager of a Brooklyn firm), B. Frank Puffer, Wm. Shewell Ellis, R. W. Johnston and others, yielded valuable information how to improve the technical side of the art, as well as business methods, on which latter subject Mr. Sheldon read a most admirable paper.

The address on advertising by Mr. McCarthy was timely and to the point; yet what pleased us most was the demonstration of new, practical ideas and devices, the best one to be awarded \$50.00 in gold. Mr. Howard D. Beach, of Buffalo, won the prize, for a novel and effective electric lighting-scheme, a brief description of which is given below. After a few appropriate remarks Mr. Beach returned the prize-money to the treasury, his act of generosity being warmly applauded. The print-exhibit consisted of 162 pictures, each member being limited to one and the choice left to his own discretion. This doubtless served a practical purpose, but did not seem to make for high artistic excellence, except in few instances. The banquet was a marked success on account of a large attendance and the brilliancy of the speeches. It was in charge of former president A. F. Bradley.

The officers for the ensuing year are: Harry A. Bliss, of Buffalo, president; J. E. Hale, of Geneva, 1st vice-president; Arthur F. Newing, of Binghamton, 2d vice-president; Howard D. Beach, secretary, and Al. Lloyd, Jr., treasurer.

## Mr. Beach's Electric Studio-Light

THERE are 20 100-watt and 4 250-watt Tungsten lamps attached to the metal ribs underneath the skylight. These lamps are 3 feet apart horizontally and  $\frac{1}{2}$  feet apart vertically, the 4 of stronger power at the bottom. They are arranged in 4 tiers of 6 lamps each. Each tier can be turned on or off independently of the others, or all can be operated at one switch. The value of having these lights directly underneath the skylight will be found in the fact that no changing around of backgrounds and side-screens is necessary, as the light comes from one source and is always ready. Even after the subject is posed, the light can be turned on without changing the direction of the light.

The color-value is of great importance. The yellowish glow of the light affects the sensitive plate much as does the color-screen, but without reducing the speed. For this reason it can be

used constantly, even when the sun is shining. The reflectors, used by Mr. Beach, are the holophane which are of glass and do not interfere with the light from the sky. Mr. Beach states that he is using 3000 watts, which in Buffalo cost from 25 to 30 cents an hour.

### A Camera Club in the Bronx

THERE are still several members of the late Metropolitan Camera Club of New York City living in the Borough of the Bronx, who are interested in pictorial photography. Several of these members would like to organize a photographic club and all amateur photographers in that section are asked to join by sending their names to G. Gushak, 1830 Kruger Avenue, Van Nest, New York City. Arrangements can be made for a meeting to organize.

### Photographs of the North Pole

PHOTO-ERA's criticism of the stereopticon views considered in connection with Dr. Cook's lecture, last autumn, has brought this office letters from various sources and of different shades of opinion. One of these was written by one in a position to know the facts, his only purpose being to assure us that Dr. Cook's pictures were genuine photographs and were not wash-drawings. The letter is given below in its entirety. The identity of the author is withheld for personal reasons.

New York, March 19, 1910.

DEAR MR. FRENCH:

I wish to speak in regard to an article in the March number of PHOTO-ERA, entitled "Pictures of the North Pole." Now, just what this picture purporting to be of the North Pole looked like on the screen, I do not know, as I did not have an opportunity to attend the lecture, but I want to tell you something about those pictures that Dr. Cook brought back with him from his trip North. Please bear in mind that I am not declaring that he ever got to the Pole, for whether he did or not, *he alone knows*. Nobody can prove that he did not, nor can he prove that he did. His notes of conditions of cold, light, humidity and the ice-conditions do not prove that he reached the Pole.

I am digressing from my subject, however. In regard to the before-mentioned pictures, I handled those films, both before development and after, and I know just how much was photographic and how much was the artist's retouching. The picture called "The Silk Tent," as I believe he titled it in his lecture, was the real goods as far as the photographic end of it goes, but was a poor specimen of the art, as were all of his views, but it was *there*, nevertheless. The other one supposed to have been taken at the Pole, showing the igloo and the flag, sled, etc., was also from a negative he made, and he declares it was made at the Pole. In the absence of any direct evidence that it was taken elsewhere, every one will have his own opinion regarding the authenticity of the

subject and its title. Dr. Cook was no photographer; nevertheless, under the poor light-conditions found in the far North, he did very well for an amateur. One strong point in his favor is the long shadows that some of his pictures show. It would have been impossible to have made these same pictures late in the afternoon, when the shadows had lengthened, and consequently, he must have been pretty far north to get the length of shadow that he did.

This lengthy letter doesn't amount to much, either one way or the other, but I wanted to tell you that the photographs purporting to be of Cook's camp at the North Pole were photographs, and not wash-drawings. Had Dr. Cook stayed here, instead of running off in the face of public criticism, he would have fared better; for it is yet to be shown that Peary reached a point any farther north than did Cook. It was with a great deal of interest that I followed both men's records, when they were printed side by side, day by day, where they could be compared and any difference noted, and I must say that it was the closest run of records that ever was submitted to public criticism.

I will close with the remark that Cook and Peary have given the world something to think about, and I suppose the truth will never be known; but Peary has buried his efforts of twenty-six years beside the new-made grave containing Dr. Cook's short but vigorous experience in the lime-light.

Yours sincerely,  
\* \* \*

### The Camera Club of New York

THE spring exhibition of photographs by members, April 9 to May 31, was unusually successful. The collection was large and contained many prints of striking merit. After the regular monthly meeting, May 5, the pictures were criticized by Mr. Archie Gunn.

April 20, seventy members and friends enjoyed a "smoker" under the direction of Messrs. Stark, Allison, Meyers and Lambert. An admirable musical program was provided, of which the chief feature was the admirable singing of assistant secretary James Stanley.

Messrs. Close & Wood, members of the house-committee, have donated to the club an 8 x 10 enlarging-camera with lens.

### One of the Old Guard

AMONG the pictures of conspicuous merit at the meeting of the P. P. S. of N. Y., April 6, 7 and 8, 1910, was a portrait of William Chase, the American portrait-painter, by George G. Rockwood. It is our intention to reproduce this excellent portrait in an early issue. In this connection it may be of interest to know that this veteran photographer has been in the harness fifty-five years — four of these years in the West and fifty-one in New York City. This is, indeed, a splendid record for a man who has always borne a high reputation for artistic ability and business integrity.

## LONDON LETTER

E. O. HOPPÉ, F. R. P. S.

### Photographic Affairs in England

We have had here one of the best "One Man Shows" which the Royal Photographic Society has organized in a long time. Mr. Alexander Keighley, whose work is familiar to readers of PHOTO-ERA, is quite one of the giants in English pictorial photography. The address which Mr. Keighley gave at the opening of his exhibition had as its text: "The Photographic Amateur," a subject on which he is well qualified to speak. His division of modern photographic workers into four classes is an interesting one. It is: The professional; the professional who does a certain amount of amateur work for exhibitions; the amateur pure and simple, and the dabbler or novice who has not yet made any progress in the art. He also made some very pregnant remarks upon the ever-contentious subject of photography and art, and although he pointed out that the advantages of the painter over the photographer were not so overwhelming as they are sometimes assumed to be, he frankly admitted that the highest flights of art attainable by the painter might be utterly beyond the reach of any photographer and consoled his audience with the thought that if one could not enter the holy of the holies there was still no reason why one should shut oneself out of the outer courts of the temple of art. Mr. Keighley also thought that if a comparison were made between any recent large exhibition and the one immediately preceding it, little advance could be detected; but compared with the same exhibition of, say, ten years ago, very marked progress, indeed, would be observable. The improvements were on the lines of technique, taste and artistic feeling. The effect has been far reaching, for the exhibitions promoted by photographic societies have undoubtedly had wholesome influence on public taste. International exhibitions have done much to foster both pictorial and fraternal feeling between photographers of all nations and tongues. Photography has been the new Esperanto, the universally-understood language in which photographers have conveyed their thoughts and impressions to one another.

During the last few weeks much has been heard about the formation of a Federation of Photographic Survey and Record Societies. The particular good that the numerous societies, who are engaged upon work of this kind in this country, are doing is gradually receiving recognition, and the fact that these societies include a great number of active and interested workers, who use the camera in an intelligent manner, must not be overlooked. The formation of such a federation is, therefore, a move in the right direction, as it may enable information regarding the best methods of survey-work in this country to be collated and dealt with in a

more systematic way. The great amount of documentary matter issued by record societies will have an opportunity to be classified and the formation of other societies in districts, not yet dealt with, will be encouraged. I hope again to refer to this topic in one of my next letters.

Mr. A. H. Blake, whose excellent work is well-known to readers of PHOTO-ERA, is the founder of that unique circle the "Society of Night-Photographers." He has done an enormous amount of work towards awakening an interest in this fascinating field. This phase of photography is almost limitless, though, of course, still in its infancy, and the results so far are to be regarded as being more or less experimental. An enthusiastic member of this society, Mr. Gideon Clark, recently suggested that some of the seaside-resorts, preferably those still retaining their old-time harbors, are very suitable spots to secure pictorial expression — pictures that suggest the poetry and feeling of night and its mystery. He does not refer, of course, to the brilliantly-lighted pier, which has been done and overdone at night, but to the ancient quarters located in many seaside-towns. The question of exposure is a very important one. Over-exposure is one of the pitfalls of night-photography, leading to a result closely approximating to a daylight-effect. The remedy is obvious, and Mr. Clark mentioned the theory propounded by the Photo-Pictorialists of Buffalo, viz.: that exposure is correct which gives a result approaching nearest the desired effect.

Since writing my letter for March different arrangements have been made by the Royal Photographic Society with regard to its annual exhibition. The council has now decided to hold the exhibition at the Gallery of the Royal Society of Painters in Water-Colors. In this gallery the "Salon," organized by the Linked Ring, has been held for the last few years. The following sections will be hung: the Pictorial Section, the Color Section, the Scientific and Technical Section, and the National History Section. The Trade Section and the Professional Photograph Section will have to be abandoned this year. The exhibition will be open from August 19 till September 16, and I hope that we may renew our pleasant acquaintance with the fine work done in America.

I am delighted to be able to tell my friends, across the water, that the "London Salon Club" has been exceedingly fortunate to conclude arrangements with one of the finest art-galleries in the English metropolis, there to hold the first "London Salon." The exhibition will take place from September 1 to October 1 in the well-known galleries of the "Fine Arts Society" in Bond Street. Every effort is being made to secure the finest work done at the present time by photography and the co-operation of American workers, particularly, is most heartily invited. I can assure them that the work, which they may submit, will receive the most careful and unbiased attention by the selecting-committee, which consists of the original founders

of the "Salon Club." A list of their names appeared in my letter for March. Three of the members of the "Salon Club" have also been honored by being invited to act on the selecting committee for the annual exhibition of the Royal Photographic Society; these are A. H. Blake, Alex. Keighley and Arthur Marshall.

### A Difference of Opinion

"To the Editor of PHOTO-ERA: I have just received the April issue of PHOTO-ERA, and in looking over the magazine my eye rested on the photo, to which you gave the first prize in the 'Home-Scenes' Competition. I do not understand why a picture of this class should receive the first prize. In the first place I think it is plain to be seen that the figure is posed; to my eye there is nothing natural about it. The stiffly starched dress attracts and holds the attention, and the black boots have the same effect. The very fact of the feet being placed close together, and the right hand clutching the dress, seems to me a sure sign that the child was placed in that position. I might also say that this picture does not impress me as being at all interesting, and I am at an utter loss to understand why this was given the first prize. In my humble estimation 'A Mental Problem' is far more satisfactory.

I would like to have you make mention of my letter in your interesting magazine so that I may see if there are any more poor amateurs who take the same view as I do. I do not mean that I am

chairman, the picture — reproduced on page 178, PHOTO-ERA for April — appeared to merit the first prize. Whether the child was posed or not, it certainly makes a strong appeal to every lover of pictures and children. The whole scheme is original and effective, and the technique excellent. The jury is willing to stand by its decision in this, as well as in all preceding and succeeding contests of the Round Robin Guild. — Ed.]

### A Successful Indian Photographer

FREDERICK L. MONSEN, the distinguished writer, investigator and photographer, spoke before the members of the University Club, Boston, April 5, his subject being the American Indian from an ethnological viewpoint. His very entertaining description of the origin, customs and present condition of the American Indian, notably the Hopi tribe, was aided by an interesting collection of photographs — about one hundred in number, which also illustrated the lecturer's remarkable photographic and artistic skill.

The following evening he lectured on the same topic, supported by his splendid and unique collection of Indian photographs, before the St. Botolph Club. In both instances he was honored with a large and appreciative audience.

### An Interesting Lecturer

MR. EDWARD LITTLE ROGERS, the well-known maker and colorist of lantern-slides, delivered a lecture, "The White Mountains," illustrated with numerous lantern-views, made and colored by himself, March 28, at 8 o'clock, at Huntington Hall, Massachusetts Institute of Technology. Although a threadbare subject and one possessing little of its old-time interest, the lecture by Mr. Rogers held the attention of the large audience present to the very end. Mr. Rogers proved himself a clear and interesting speaker.

### Satisfaction in Waste

IT is erroneous to suppose that manufacturers and dealers rejoice when photographic supplies are ruthlessly wasted. The fact is that those who waste considerable material and are satisfied with only 10% of successful exposures are not the kind that maintains an interest in photography. Beginners who obtain a large per cent of successful exposures are more apt to continue their enthusiasm and make photography a permanent source of pleasure. A well-known photo-finisher states that the above is true; also, that those who use cameras 4 x 5 and larger are more careful in their work, averaging 75 and even 90 per cent of successful exposures.

### Mr. Phillips Returns from Spain

THE noted pictorialist, Mr. William H. Phillips, of East Liverpool, Ohio, returned, the end of last April, after a successful photographic camera tour in Spain. He has brought back with him about four hundred successful negatives, some of which will, doubtless, appear, from time to time, in the pages of PHOTO-ERA.



ON GUARD

G. A. HOLLANDS

at all dissatisfied with your magazine. I am enclosing you a print from one of my own negatives, which I did not consider good enough to enter in any competition; but since looking over pictures entered in some of your recent competitions I have come to the conclusion that mine would at least have got Honorable Mention, that is, if you judged it by what you gave the first prize to. This picture, entitled 'On Guard,' is perfectly natural, the dog assumed this position of his own 'free will.' The baby is less than three months old. If you consider this picture good enough to reproduce you have my permission to do so."

Sincerely yours,  
G. A. HOLLANDS.

[In the opinion of the jury, which is composed of our editorial staff and Mr. William Howe Downes, art-editor of the *Boston Transcript*,

## BERLIN LETTER

MAX A. R. BRÜNNER

### Photographic Affairs in Germany

DURING spring every year the Imperial statistical bureau of Berlin publishes a big volume of figures concerning import and export of any kind of industries, besides other statistics. As regards photographic products the year 1909 is much better than 1908, although the figures have not reached those of 1907. The improvement is due to the remarkable reviving at the end of the passed year and the present one will show still better figures. As regards the business in precious metals used for photographic purposes, during the past three years, we find that Germany exported in 1907 7,100,646,000 Marks; in 1908, 6,481,600,000 Marks, and in 1909, 6,947,830,000 Marks. During the past year there were exported photographic apparatus amounting to 4,247,000 Marks; dry-plates 2,061,000 Marks; optical glass 2,061,000 Marks; sensitized papers 4,400,000 Marks; photographic picture postcards 16,680,000 Marks, and photographs 1,355,000 Marks, totaling the big sum of 33,097,000 Marks. This sum is eight times that of imports during 1909. Cameras were exported as follows: 23,500 kilograms to France; 22,800 to Great Britain; 12,100 to Italy; 27,800 to Russia; 5,100 to Argentine and 3,800 to the United States. As regards dry-plates, the imports have been much increased, viz., 45 per cent over 1908. This is due particularly to the British figures, which country sent us in 1905 38,700 kilograms, in 1907 92,900 kilograms and, during the past year, 160,300 kilograms. But the importation of French dry-plates has decreased, while that of American plates was 35,200 kilograms as against 26,700 in 1908. That country is also our best customer for optical glass, as it purchased 413,500 kilograms, while all other countries, together, took only 13,000 kilograms. The German export in photographic lenses and microscopes increased from 8,3,100 to 90,800 kilograms. The imports of photographic papers have decreased about sixty per cent — this refers to the raw product, while the figures for sensitive paper remain nearly the same. Regarding postcards, about thirty times as much was exported as imported; but in 1907, it was 33 times greater. The best customers are the United States with 2,776,000 kilograms (as against 25,002 in 1908), also Great Britain with 478,800 kilograms, Holland with 158,600, Russia with 146,700, Switzerland with 120,400, and twelve other countries with smaller quantities. This shows that the photographic industry in the German Empire is quite an important one, and that its products are much liked abroad.

The principal firms have good chances this year to show their products again to many amateurs and professionals of other countries,

as Europe offers numerous photographic exhibitions. The principal one is the World's Fair in Brussels where, in the Palace of Varied Industries, the printing-art and photography are shown side by side. A committee has been selected by the famous Professor A. Miethe. A preliminary jury has been organized, which selects only the very best prints of photographic workers of both classes. The Imperial commissioner has favored one group of exhibitors above all the others by making no charge for space, and this group is photography. Clubs, individual workers and manufacturers are much pleased with this act of courtesy. While in Brussels there will be a general exposition, a special photographic show will be held this summer in Riga (Russia) in the Municipal Art Museum. It comprises scientific, color, artistic, stereoscopic, technical and architectural and kinematographic photography, processes for reproduction, apparatus, materials, literature, etc. For the best pictures prizes are offered in the form of medals and artistic diplomas. The exhibition, which is international, will last until September 15. A smaller show will be held during June in the Austrian city of Brünn, where, besides photographs and photographic products, photo-engraving, printing and similar industries will be included. This will be the first large general photographic exhibition in Austria, and is exciting considerable interest among the photographers and manufacturers in that country. A smaller international exhibition, open only to amateurs, has just been held by the Photographic Society in Danzig.

Among other important doings we may mention that a Prussian Photographic-Technical college has been founded in Berlin. The noted Lette Club runs what is probably the largest and best photographic school, but this was open only to women, according to the wishes of the founder. Now, after this club has existed twenty years the members are much pleased that the state made the request to establish also a department for men, being ready to assume the entire cost of such an addition. In addition, the cities comprising Greater Berlin agreed to contribute a certain sum every year, while several large mercantile firms gave 23,500 Marks for the immediate alteration, additional apparatus, salaries for extra teachers, etc.

A novelty worthy to be described, is the "diagonal focusing-screen" invented recently in Bavaria. Surely many a photographer has had difficulty in focusing dark places, chiefly interiors. Often some greasy material was spread over the ground-glass to make it more translucent. The new Diagonal Screen overcomes these drawbacks, a strip of clear glass, one eighth of an inch wide, runs from each corner diagonally across the focusing-screen. When one has focused the corners to the desired sharpness, it is clear that the portions enclosed must also be sharp. These transparent bands might be equally effective, if they were arranged in the form of a cross, running from the middle of each side, for then one

would be enabled to focus easily horizontal and vertical lines. The inventor has followed this suggestion and now makes both kinds of such focusing-screens. A few words may be said about a new method of dry-mounting. Dr. Neu-brunner's dry paste-strips were awarded the silver medal at the great Dresden exhibition of 1900. Now this firm makes legally-protected black-and-white "marking-strips." They serve for marking lantern-slides with titles and numbers and facilitate their insertion in the projection-apparatus. The same firm manufactures a special paper to be placed between the photographic print and the mount. This has great adhesive power and a low melting-point. Thus it is possible to mount photographic prints without a special press or a similar device, as was necessary with the former dry-mounting methods. It is sufficient to go over the prints with a flatiron a minute or so, or run them through a heated enameling-machine. The low melting-point makes this paper very suitable for extremely glossy photographic prints that are sensitive to heat and dampness. [One kilogram is equal to 2 1/5 pounds Avordupois. — *Ed.*]

#### Nebraska Photographers' Association

THE Executive Committee of the Nebraska State Association has chosen the Art Hall, at the State University, as the place of meeting for the annual convention, to be held September 27, 28, 29, 30, 1910. Last year the Nebraska convention was credited by manufacturers with the largest number of exhibits of any State convention for the year 1909. This year it is the aim to increase that number and swell the membership to the utmost. With three national men to serve as judges it is assured that with their broad-minded and conservative knowledge of photography, all will receive a fair rating. A new class was created which was named the "Special Class" and was given rank between the Children's Class and Class "A." First prize in this class will be a large bronze bust, such as would be one of the most prized and attractive possessions to the winner, for any photographer's reception-room; second prize, a fine gold medal; third prize, a silver medal. The question with reference to the percentage necessary to win in classes C, B and A was made 65, 70 and 75 respectively. In all other classes, 80. This is a very low percentage necessary to win. The average percentage on exhibits rated last year, 1909, averaged 91% out of 100 points. Nothing slow for Nebraska. Things are done rightly and the right kind of photographers are interested. The Nebraska Photographers' Association stands for "PROTECTION," the upbuilding of photography in an intelligent and financial manner. The association is forming a great question-box whereby questions that confront a photographer directly will be considered, weighed and solved to the best of available ability. If you are a photographer in good standing in your community and eligible, Ralph R. Roszell, Secretary, Beatrice, Nebraska, will be only too glad to enroll

you as a member of the N. P. A. Those outside of this State, not members elsewhere, will also be enrolled. What higher credit can you give your studio than being a member of the Nebraska Photographers' Association, and by so doing, you become a member of the Photographers' Association of America, the highest photographers' association in the United States.

#### Hoppé Takes Pupils

E. O. HOPPÉ, the well-known professional practitioner, critic and author, of London, has been rearing pupils in the art of photography for some time past, his fee for the tuition being thirty-five pounds (\$175.00) per annum. He states that while he is constantly receiving applications, he exercises the greatest care in accepting them, as they must be persons of ability and highest character. The pupils work with him in his studio. Address him at 8 Margravine Gardens, Varvons Court, London, W., England.

#### Boston Camera Club

AMONG the prints on the walls of the Club, during the month of April, was the Interchange Exhibit of the Photographic Section of the Pittsburg Academy of Arts and Sciences. These prints, with few exceptions, did not reflect the highest credit upon the Pittsburg workers.

After the business of the regular monthly meeting, April 4, a lecture was given by Mr. Wilfred A. French, of PHOTO-ERA. His subject was "A Camera Tour Through Switzerland," illustrated with nearly one hundred stereopticon-views, mostly original, which depicted the glorious scenery of this picturesque country.

#### A Moving Picture

A SUBSCRIBER sends us a beautiful print in color portraying the closing scene in Wagner's opera "Tristan and Isolde." It depicts Tristan stretched out, as if dead. At his feet, overwhelmed with grief, kneels his trusty squire, Kurnewal — truly a touching scene. On the lower margin of the print is penciled: "A moving picture, not a moving-picture." Another reason why the term "moving pictures" or even "moving-pictures," applied to motion-pictures, should be abolished.

#### Out of the Picture

WHEN the late E. H. Harriman completed that wonderful engineering and railroad feat known as the Salt Lake cut-off there was a celebration, and Harriman took a large party of big railroad-men out to it.

They had their pictures taken at the right spot scenically. Mr. Harriman stood at one end of the group. When the pictures were printed and the photographer brought them around the railroad-men examined them.

"Why," shouted one of the guests, "where's Mr. Harriman?"

"Do you mean that little chap that stood at the end?" asked the photographer. "Why, I cut him off." — *Saturday Evening Post.*

## BOOK-REVIEWS

*Books reviewed in this magazine, or any others our readers may desire, will be furnished by us at the lowest market-prices.*

A B C OF PHOTOGRAPHY. By an Amateur (Fayette J. Clute). Revised edition 12mo. Price, 50 cents. Chicago: Burke & James.

The active editor of *Camera Craft* has found time to write a readable and practical treatise on photography for the amateur. After a perusal of this little work we are convinced that it is a very desirable guide for the beginner. The nineteen chapters cover the subject quite fully. Another praiseworthy feature is the author's freedom from prejudice, and for this reason these lessons in photography are cheerfully recommended to the general public.

DIE STANDENTWICKLUNG UND IHRE ABARTEN FÜR DEN AMATEUR-UND FACHPHOTOGRAPHEN, by Hans Schmidt. Illustrated. Number 69. Price, 2.40 Reichsmarks (57 cents). Wilhelm Knapp, Halle a. S.

This is the latest addition to Mr. Knapp's admirable "Encyclopædia of Photography" and treats stand-development and its various modifications as adapted to the amateur and to the professional practitioner. The author appears to have treated the subject quite exhaustively and, with numerous developing-formulas and suitable illustrations showing the results obtained, has prepared a volume of obviously practical value.

DIE PHOTOGRAPHISCHE KUNST IM JAHR 1900, Illustrated in photogravure, half-tone and color. Edited by F. Matthies-Masuren. Size of volume, 9 x 11½ inches. Price, paper covers, Reichsmarks, 8.00; cloth, 9.00 (\$2.15), postage 16 cents. Wilhelm Knapp, Halle, a. S., Germany.

This year-book devoted to a comprehensive review of artistic photography rightly claims a place in the library of every pictorialist and picture-lover. The present volume is inspiring in its wealth of examples by acknowledged masters in the art of expression by photography. The one hundred or more illustrations comprise one admirable fac-simile of a Lumière Autochrome by Heinrich Kühn; several superb photogravures, and a generous number of half-tone plates. The editor, F. Matthies-Masuren, has shown excellent taste and judgment in the selection of his material, which illustrates the work of nearly every European pictorialist of note. American workers are less numerous in this issue than last year, and, whether by carelessness or design, the work of American Photo-Secessionists finds no representation. In order to compensate for previous omissions, the editor presents examples of the Buffalo Photo-Pictorialists and, also, of two eminent Philadelphia workers. Virtually all the European schools

appear to advantage, and particular prominence is given to the Scandinavian, Dutch and Hungarian workers.

The letter-press is uncommonly interesting. The admirably-written essays are as follows: "Technique and Art," by Ernst Schur; "The Beauty of the Metropolis as an Artistic Theme for the Photographer," by Willi Warstat; "Stagnation or Retrogression—With reference to English Pictorial Photography 1908-09," by E. O. Hoppé; "Photographic Pictorial Standards in Holland," by Bernhard Eilers; "Negative Criticism of Great Lights," by Fritz Baer; "From the Photographic Portrait to the Art of Expression—Observations and Deductions concerning the Dresden International Photographic Exposition of 1900," by Willi Warstat. The volume, in literary and pictorial respects, is worthy the serious consideration of every thoughtful worker, and is warmly commended to our readers and friends. Orders will be filled by the publisher of PHOTO-ERA.

### Coöperation is Sometimes Wanting

NOT long ago we asked a prominent English pictorialist to supply technical data of his print, soon to be reproduced in PHOTO-ERA, for publication in "Our Illustrations" department. He begged to be excused, stating that since the intention was purely pictorial, he thought such details as much out of place as a label on a painting naming the kind of canvas and brushes used. Were the data to accompany the actual print one might justly complain, but in the present instance there seems to be no sufficient reason for objection. A professional photographer may also be excused from refusing to divulge a secret of his profession upon which a portion of his income depends; but an amateur, whose aims are purely pictorial, should be less mercenary and be willing to do his little share toward the advancement of photography as an art, as well as the exploitation of his own genius.

The great men of all times are those who in one way or another have made their knowledge available to the public; those who have kept the details of their achievements to themselves are, for the most part, unknown. Some prominent photographic pictorialists either forget that others may desire to make pictures similar to their own, and do not wish it; or else they prefer to keep their methods to themselves, fearing that others will excel in the use of them. In any case it is a regrettable and narrow policy.

The many letters of commendation which we have received from all parts of America tell us that "Our Illustrations" is one of the most popular of the original features in PHOTO-ERA, which has not yet been copied by our contemporaries. It is the purpose of PHOTO-ERA to present practical information, and particularly to assist beginners. In no way can this be done better than to describe how advanced workers make their pictures, and no broad-minded, public-spirited person who has the advancement of photography at heart has refused to coöperate with us.

# WITH THE TRADE

## Steinheil Lens-Catalog

THE competition in lenses is as keen as ever and the best will surely win out. Meretricious lenses, particularly those for which all sorts of false claims are made, are sedulously ignored by PHOTO-ERA.

Among the lenses which we heartily recommend are those constructed by Steinheil & Sohne, of Munich. This is one of the oldest and most distinguished optical firms in the world, and its instruments continue to maintain the high reputation they have won by honest and uniform merit. The latest Steinheil catalog, issued last April, attractively features the Triplar, F/3.8; Unofocal, F/4.5; Orthostigmat F/6, F/6.8, F/10, F/12, and Apochromat F/9 (for three-color work); Tele-photo lenses for stand-cameras, also for hand-cameras; Orthostigmat Lenses fitted to Ibsa, Koilos and Compound Shutters, for plates from  $3\frac{1}{4} \times 4\frac{1}{4}$  to  $6\frac{1}{2} \times 8\frac{1}{2}$ , and other optical specialties. The catalog is admirably printed, contains a number of excellent cameo-plate half-tones, and a superb four-color print from an original painting by C. Steinheil — evidencing the high merits of the lenses enumerated.

Herbert & Huesgen, of New York City, are the American agents, and they may be relied upon for prompt and strictly honest dealing. Send to them for a copy of the Steinheil catalog, mentioning PHOTO-ERA.

## Good Goods for Good Pictures

PHOTOGRAPHY becomes a double pleasure when one can always depend for first-class results on the materials employed. All the products of the celebrated Ilford Company enjoy the highest reputation for all the excellences required by the most fastidious worker. The firm's bromide papers are a joy to every worker familiar with them. The uniform quality of the various dry-plates of this firm indicate that they are made under the most ideal conditions possible. They seem to work equally well in England, and in every clime in the world.

## Cooke Extension-Lenses

How often one sees things at a distance which are attractive to the eye, yet too small on the ground-glass to be worth photographing. Users of Cooke anastigmats can avoid such disappointments by the use of the vest-pocket Extension-Lens. This is substituted for the rear glass of the normal lens, increasing the size of every object in a picture fifty per cent. There is also the advantage that the lens is still a doublet with a speed of f/11. The Taylor-Hobson Co., 1135 Broadway, New York City, will send upon request a booklet "Helps to Photographers," telling more about this ingenious device.

## A Change in the Goerz Staff

MR. AUGUST STOECKIET, until recently treasurer and manager of the C. P. Goerz American Optical Company, has been succeeded in that capacity by Mr. Fred Schmid, who has been with the company for twelve years as superintendent of the American branch factory. Mr. Stoeckicht severed his connection with the firm because he intends to take up an entirely different line of business in Germany.

## Burglars Rob Photo-Supply Store

DURING the night of April 11 the well-known optical and photo-supply store of A. E. Covelle & Co., 350 Boylston Street, Boston, was entered and high-class optical goods to the value of \$1200 were taken. Shortly after the regular watchman had tried the door, finding everything in order, the burglars forced an entrance through the front-door and appropriated a large amount of valuable loot. When the watchman returned in about fifteen minutes he found that the store had been robbed. The camera department was not molested. This was probably because no sign was displayed: "Take a Kodak with you."

The stolen articles include opera and marine-glasses on which the firm's name is plainly engraved.

## Photographic Mounts

IT is a pleasure to turn the pages of a well-printed, artistic catalog of attractive goods, and such a volume is the latest complete description of its vast line issued by the A. M. Collins Manufacturing Co., Philadelphia. Professional photographers will always find illustrated in its pages a suitable mounting for any sort of photographic work, and a copy should be in every studio for reference.

## Whom Not to Patronize

PHOTO-ERA has found it necessary to criticise, from time to time, the methods of certain dealers and, also, the methods of firms eager to exploit the amateur. While, doubtless, severe in our strictures of all firms or persons unworthy of confidence, PHOTO-ERA has not the slightest intention to cast the least reflection upon the dealers as a class, and desires to give every one a square deal.

Dealers, as a rule, are honest, reliable and actuated by the best of motives. There are black sheep in every profession, and it is the duty of the discriminating and fearless editor to warn the public against dishonest schemes and practices. Fortunately the advertisements contained in PHOTO-ERA comprise almost every need of the professional, as well as the amateur, and *each and all of its advertisements* are absolutely trustworthy. In case of the least doubt, consult PHOTO-ERA.

## The Euryplan Lens

AFTER a critical examination of this excellent German lens, soon to become a favorite in this country, as it is in England today, we find the claims of the makers to be substantiated. The Euryplan has been computed by an advanced German mathematician and is composed entirely of Jena glass from the works of Schott & Gen. The lens, in its several series, is constructed at the Schulze & Billerbeck's Optical-Mechanical Works, Berlin, Germany. Each lens of the two latest series, F/6.5 and F/4.5, is composed of two symmetrical and cemented combinations, of three lenses each. It is entirely achromatic and covers with full aperture, sharp to the edges, the size plate as listed; for instance, a 7-inch lens a 5 x 7 plate. The glass used is absolutely colorless and resists to the utmost all atmospheric influences, hence the lens is adapted particularly to use in the tropics. Each combination may be used interchangeably, and serves as an admirable landscape-objective of nearly double the focal length of the complete lens. Hence the Euryplan lenses are suitable for manifold uses and may be regarded as universal lenses of the first rank. As they are, moreover, moderate in price, they commend themselves to workers of modest means. For full information address the American agents, Ralph Harris & Co., Boston.

## Seneca Cameras

ATTRACTIVE as ever in the past, the latest catalog of Seneca cameras presents a line which is among the most complete in this country. Many improvements are seen this season, yet the prices remain unchanged for the most part, and are as reasonable in every instance as is compatible with high-grade workmanship, for which this firm is noted. Any one who intends to buy a new camera will do well to send for this booklet and examine the new models.

## A Square Deal

THIS phrase is conspicuously identified with the advertisements and house-literature of C. G. Willoughby, the well-known dealer in photographic supplies, of New York City. His list "No. 120" is remarkable for the quantity, selection and low prices of photographic materials of all kinds. Every worker should send for a copy of this comprehensive bargain-list, being assured that he will also receive a square deal.

## Good Prices for Photographs

ELSEWHERE in these pages will be found an advertisement of a prominent and responsible publishing-firm which desires striking and original pictures for calendar use. Instead of having a sliding-scale of prices, the firm has fixed \$25.00 cash as the price for each accepted picture. Workers should bestir themselves, as the time-limit is August 1, 1910. For particulars see the advertisement of Woodward & Tiernan Printing Company.

## The Women's Federation

THE Women Photographers of the United States will meet for the first time, as a body, and as an organization for women, with the National Association of the Photographers of America at the Annual Convention in Milwaukee, July 12 to 16. They are distinct, yet fully affiliated with the National body.

The Board of the P. A. of A., alive to the growth of the Federation in the past few months, has accorded full recognition, wall-space, hours and support at this convention. It is the duty of every woman photographer to make such a show, both individually and as a united body, that the purpose and sound business advantage of the affiliation shall be firmly established. Further information may be had upon application to the Secretary, M. Estelle Jenkins, 432 N. Park Ave., Austin Station, Chicago.

## Summer Photographic School

CLARENCE H. WHITE, the well-known pictorialist and prominently identified with the Photo-Secession movement, and for three years lecturer on art in photography at the Teachers' College, Columbia University, and at the Brooklyn Institute of Arts and Sciences, will conduct a class in photography at Seguinland, Maine, from July 5 to 26, 1910. F. Holland Day, of Boston, will cooperate in the criticism of the students' work. Ladies interested in this project may be pleased to know that Mr. White's mother, as well as his wife, will act as chaperons. For all information address Mr. White, at 5 West 31st Street, New York City.

## Postal Photographic Club

THIS, the pioneer organization of its kind in the United States, is now in its 22d year of existence, and is still progressing in the full tide of prosperity and efficiency. The Club has maintained its full membership for years and has at present names on the waiting-list. Its membership embraces the names of many of the most accomplished and distinguished workers in artistic photography and its note-books are replete with valuable and helpful criticisms by its corps of capable and well-informed writers.

Although the membership is very widely distributed geographically, yet at occasional intervals the members have informal meetings and also interchange visits with each other. By this means a strong club-feeling is maintained and many personal friendships are formed. For the past ten years the present officials of the club, Chas. E. Fairman, Pres., and G. A. Brandt, Secy. and Treas., have been annually reelected. A portrait of the latter by J. Will Palmer appeared in PHOTO-ERA for May. Not only a characteristic likeness, it was also a superb example of portrait-work in Mr. Palmer's forceful style. His self-portrait, which appeared in the April issue, received the Postal Photographic Club prize, as well as an award from PHOTO-ERA.

### Patrons Pleased

From every quarter the Bingham Company is receiving letters of commendation for Bingo paper and chemicals. It must, indeed, be gratifying to have such really praiseworthy products so quickly appreciated by the public.

### A Boon to Home Portraitists

No equipment for taking portraits in the home or objects relieved against displeasing backgrounds is complete without a compact and portable background of suitable character. This valuable accessory is made in several varieties to suit every condition and is quickly placed in position by means of an extremely light and compact folding metal carrier which folds in three tube sections.

No worker engaged in permanent or occasional portraiture away from his headquarters can afford to be without this necessary and inexpensive outfit. We honestly advise every one interested to send, at once, for illustrated price-list to the makers, Robey-French Co., 34 Bromfield Street, Boston, U. S. A.

### Mr. Harris Visits Europe

RALPH HARRIS, of the firm of Ralph Harris & Co., Boston, has recently returned from Europe, where he visited several important manufacturing-firms, including the Wellington & Ward factory, which his firm represents in the United States. He found that this house was erecting new buildings owing to the increased demand for Wellington products.

### Carbon Tones

THE Defender Photo-Supply Company has every reason to be proud of its latest achievement — Carbon Argo in five surfaces, Matte, Gloss, Velours, Lustre and Rough. Hitherto this product was too slow and the stock inclined toward the gray. Now it is more sensitive and more brilliant, the stock is white and capable of producing vigorous prints from weak negatives. Send to Rochester, N. Y., for a free sample.

### Artura's New Home

IN consequence of consolidation but, more particularly, to facilitate the handling of a greatly-increased output, the Artura manufacturing-plant has been transferred from Columbus to Rochester, N. Y.

The dust will gather

The dust will settle in — Columbus!

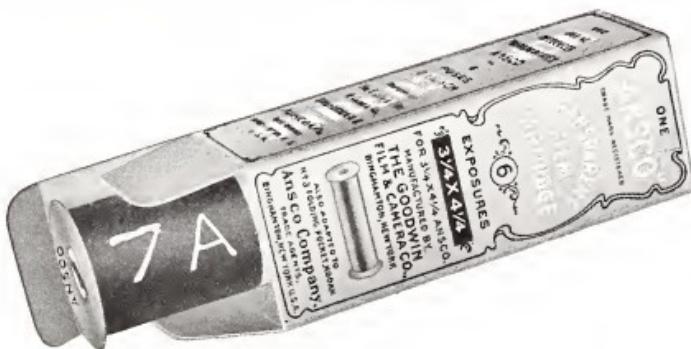
### A Common Sense Opaque Projector

AMONG the good things that are being degraded into cheap and worthless articles, is the opaque projection-lantern, suitable for opaque objects, viz., pictures of all kinds, flat objects, etc. PHOTO-ERA has steadfastly protested against the sale of this meretricious class of merchandise, going so far as to engage Mr. C. H. Claudio to write strongly on this subject. (See PHOTO-ERA for January, 1910.) It is with satisfaction, therefore, that we recommend to our readers the "Franklin" opaque projector sold by J. H. Prescott, 175 Ontario Street, Providence, R. I.

## PHOTOGRAPHIC EXHIBITIONS

Information for publication under this heading is solicited

Society or Title	Date	Entries Close	Particulars of
Japanese-English Earl's Court, London	May 15 indef.		
London Salon Club Fine Arts Society Gallery London	Sept. 1 to Oct. 1		
Municipal Art Museum, Riga, Russia	Until Sept. 15		
National Union of Hungarian Amateur Photographers Palace of Fine Arts, Budapest	May 15 indef.		
Photo-Club, Vienna	Month of Aug.		
Photo-Industrial Brunn, Austria	Month of June		
Royal Photographic Society R. S. Water-Color Painter's Gallery, London	Aug. 19 to Sept. 16		
World's Fair, Brussels			



# IT'S the Film That Makes the Picture

Ansco Film give negatives true to life—color value, chromatic balance, free from halation and with detail in the shadows, viz: The draperies, dresses etc., are reproduced in their true color ratio. Auburn hair in a different tone from black hair. Blue eyes will not be almost white.

The numbers on the protecting paper will not print on the film. There are films that do this. Beware of them. It can only be overcome by our *properly prepared* black paper and enduring emulsion. Ansco Film fit any camera. Exposure numbers always register.

**"ANSCO"**  
**FILM**

**YOURS  
FOR THE ASKING**

*A photo library  
in two volumes.*

**Ansco Company, Binghamton, N. Y.**

# The Best Periodicals

With	Reg.	Photo-	Class	With	Reg.	Photo-
	Price	Era	No.		Price	Era
Ainslee's Magazine . . . . .	\$1.80	\$2.30	22	Short Stories . . . . .	\$1.50	\$2.40
American Boy . . . . .	1.00	2.00	30	Smart Set . . . . .	3.00	3.00
American Magazine . . . . .	1.50	2.00	45	Suburban Life . . . . .	3.00	3.55
Atlantic Monthly . . . . .	4.00	4.80	14	Success Magazine . . . . .	1.00	2.00
Automobile (weekly) . . . . .	3.00	3.55	20	Sunset Magazine . . . . .	1.50	2.30
Boston Cooking School Magazine . . . . .	1.00	2.00	16	Table Talk . . . . .	1.00	2.00
Burr McIntosh Monthly . . . . .	3.00	3.55	20	Technical World . . . . .	1.50	2.30
Children's Magazine . . . . .	1.00	2.00	20	Travel Magazine . . . . .	1.50	2.30
Circle . . . . .	1.50	2.20	14	Van Norden's Magazine . . . . .	1.50	2.00
Cosmopolitan . . . . .	1.00	2.00	18	Woman's Home Companion . . . . .	1.50	2.20
Country Life in America . . . . .	4.00	4.20	20	World To-day . . . . .	1.50	2.30
Craftsman . . . . .	3.00	3.50	45	Yachting . . . . .	3.00	3.55
Current Literature . . . . .	3.00	3.55				
Designer . . . . .	1.50	1.80				
Etude . . . . .	1.50	2.30				
Field and Stream (weekly) . . . . .	1.50	2.30				
Fine Arts Journal . . . . .	3.00	3.00				
Forest and Stream (weekly) . . . . .	3.00	3.55				
Garden Magazine . . . . .	1.00	2.00				
Good Housekeeping . . . . .	1.25	2.00				
Hampton's Magazine . . . . .	1.50	2.30				
Harper's Bazaar . . . . .	1.00	2.00				
House and Garden . . . . .	3.00	3.55				
House Beautiful . . . . .	2.50	3.55				
Houskeeper . . . . .	.75	1.70				
Independent (weekly) . . . . .	3.00	3.00				
International Studio . . . . .	5.00	5.55				
Keramic Studio . . . . .	4.00	4.80				
Ladies' World . . . . .	.50	1.65				
Leslie's Weekly . . . . .	5.00	5.00				
Lippincott's Magazine . . . . .	2.50	3.50				
McClure's Magazine . . . . .	1.50	2.20				
Metropolitan Magazine . . . . .	1.00	2.20				
Modern Priscilla . . . . .	.75	1.80				
Motor Age (weekly) . . . . .	2.50	2.80				
Musical Leader (weekly) . . . . .	3.00	3.55				
Musician . . . . .	1.50	2.50				
National Magazine . . . . .	1.50	2.30				
National Sportsman . . . . .	1.00	2.05				
New England Magazine . . . . .	1.50	2.65				
New England Woman's Magazine . . . . .	.50	1.65				
Outing . . . . .	3.00	3.55				
Outlook (weekly) . . . . .	3.00	4.05				
Pacific Monthly . . . . .	1.50	2.05				
Palette and Bench . . . . .	4.00	4.80				
Pearson's Magazine . . . . .	1.50	2.00				
Philistine . . . . .	1.00	1.95				
Photo-Era . . . . .	1.50	3.00				
Pictorial Review . . . . .	1.00	2.00				
Power Boating . . . . .	1.00	2.05				
Putnam's Magazine . . . . .	3.00	3.00				
Recreation . . . . .	3.00	3.55				
Red Book . . . . .	1.50	2.75				
Review of Reviews . . . . .	3.00	3.00				
School Arts Book (10 Nos.) . . . . .	1.50	2.55				
Delineator . . . . .	\$1.00	Our	World's Work . . . . .	\$3.00	Our	World's Work . . . . .
Everybody's Magazine . . . . .	1.50	Price	Everybody's Magazine . . . . .	1.50	Price	Everybody's Magazine . . . . .
Photo-Era . . . . .	<b>\$1.50 \$3.55</b>		Delineator . . . . .	<b>1.00 \$4.55</b>		Delineator . . . . .
	\$4.53		Photo-Era . . . . .	<b>1.50</b>		Garden Magazine . . . . .
Delineator . . . . .	\$1.00	Our	Photo-Era . . . . .	\$7.00		Photo-Era . . . . .
World's Work . . . . .	3.00	Price				
Photo-Era . . . . .	<b>1.50 \$3.55</b>					
	\$5.50					
World's Work . . . . .	\$1.00	Our	Country Life in America . . . . .	\$4.00	Our	Country Life in America . . . . .
Everybody's Magazine . . . . .	1.50	Price	Delineator . . . . .	<b>1.00 Price</b>		Delineator . . . . .
Photo-Era . . . . .	<b>1.50 \$3.80</b>		Everybody's Magazine . . . . .	<b>1.50 \$5.30</b>		Everybody's Magazine . . . . .
	\$6.00		Photo-Era . . . . .	<b>1.50</b>		World's Work . . . . .
Country Life in America . . . . .	\$4.00	Our		\$8.00		Photo-Era . . . . .
Outing . . . . .	3.00	Price				
Photo-Era . . . . .	<b>1.50 \$5.45</b>					
	\$8.50					
Country Life in America . . . . .	\$4.00	Our	Country Life in America . . . . .	\$4.00	Our	Review of Reviews . . . . .
Forest and Stream (weekly) . . . . .	3.00	Price	World's Work . . . . .	<b>3.00 Price</b>		Woman's Home Com-panion . . . . .
Photo-Era . . . . .	<b>1.50 \$6.00</b>		Delineator . . . . .	<b>1.00 \$5.80</b>		or, McClure's Magazine . . . . .
	\$8.50		Photo-Era . . . . .	<b>1.50</b>		American Magazine . . . . .
Country Life in America . . . . .	\$4.00	Our		\$8.50		or, Cosmopolitan . . . . .
						or, Good Housekeeping . . . . .
						or, Success . . . . .
						Photo-Era . . . . .
						<b>1.50</b>
						\$7.50

## How to Make Up Clubs

To obtain the club price of any combination of periodicals selected from this list, find the class number of each of the magazines in the left-hand column, add them together, multiply the sum by 5 cents and add 30 cents commission. When there are more than four magazines in a club, add 10 cents for each magazine included, instead of 30 cents for them all.

## Add One More Magazine

Any of the magazines mentioned below may be added to your order at the prices given.

With	Reg.	Photo-	Our	With	Reg.	Photo-
	Price	Era	Price		Price	Era
American Homes and Gardens . . . . .	\$2.75	\$4.25		World's Work . . . . .	\$2.00	Our
American Naturalist . . . . .	4.00	5.50		Everybody's Magazine . . . . .	1.50	Our
Century Magazine . . . . .	3.85	5.00		Delineator . . . . .	1.00	Price
Collier's Weekly . . . . .	5.70	6.50		Garden Magazine . . . . .	1.00	
Delineator . . . . .	1.00	1.50		Photo-Era . . . . .	<b>1.50</b>	
Everybody's Magazine . . . . .	1.50	3.00				
Harper's Magazine . . . . .	3.50	4.80				
Harper's Weekly . . . . .	3.50	4.80				
Horseless Age (weekly) . . . . .	1.50	3.25				
Ladies' Home Journal . . . . .	1.50	3.00				
Life, with picture (weekly) . . . . .	4.50	6.00				
Literary Digest (weekly) (new 2.00) . . . . .	3.00	4.50				
Masters in Art . . . . .	2.00	3.00				
Motor Boat (semi-monthly) . . . . .	1.75	3.25				
Munsey's Magazine . . . . .	1.00	2.50				
National Geographic Magazine . . . . .	2.25	3.75				
North American Review . . . . .	3.50	4.50				
Rudder . . . . .	2.25	4.10				
S. N. Nichols . . . . .	1.85	4.35				
Saturday Evening Post (weekly) . . . . .	1.50	3.00				
Scientific American (weekly) . . . . .	2.75	4.25				
Scribner's Magazine . . . . .	3.00	4.00				
Vogue (weekly) . . . . .	4.00	5.50				
World's Work . . . . .	3.00	4.50				
Youth's Companion (weekly) . . . . .	1.75	3.25				
World's Work . . . . .	\$3.00	Our	World's Work . . . . .	\$2.00	Our	World's Work . . . . .
Everybody's Magazine . . . . .	1.50	Price	Everybody's Magazine . . . . .	1.50	Price	Everybody's Magazine . . . . .
Delineator . . . . .	1.00	4.55	Delineator . . . . .	<b>1.50</b>		Delineator . . . . .
Photo-Era . . . . .	<b>1.50</b>		Photo-Era . . . . .	\$7.00		Garden Magazine . . . . .
Country Life in America . . . . .	\$4.00	Our	Country Life in America . . . . .	\$4.00	Our	Country Life in America . . . . .
World's Work . . . . .	3.00	Price	World's Work . . . . .	<b>3.00 Price</b>		Delineator . . . . .
Delineator . . . . .	1.00	5.80	Delineator . . . . .	<b>1.50 \$5.30</b>		Everybody's Magazine . . . . .
Photo-Era . . . . .	<b>1.50</b>		Photo-Era . . . . .	<b>1.50</b>		World's Work . . . . .
Country Life in America . . . . .	\$4.00	Our	Review of Reviews . . . . .	\$3.00	Our	Review of Reviews . . . . .
World's Work . . . . .	3.00	Price	Woman's Home Com-panion . . . . .	1.50	Price	Woman's Home Com-panion . . . . .
Delineator . . . . .	1.00	5.80	Delineator . . . . .	<b>1.50 \$4.25</b>		Delineator . . . . .
Photo-Era . . . . .	<b>1.50</b>		Photo-Era . . . . .	<b>1.50</b>		Everybody's Magazine . . . . .
Country Life in America . . . . .	\$4.00	Our	World's Work . . . . .	3.00	Price	World's Work . . . . .
Everybody's Magazine . . . . .	1.50	6.05	Delineator . . . . .	<b>1.50 \$5.30</b>		Delineator . . . . .
Photo-Era . . . . .	<b>1.50</b>		Photo-Era . . . . .	<b>1.50</b>		Everybody's Magazine . . . . .
Country Life in America . . . . .	\$4.00	Our	Review of Reviews . . . . .	\$3.00	Our	Review of Reviews . . . . .
Forest and Stream (weekly) . . . . .	3.00	Price	Woman's Home Com-panion . . . . .	1.50	Price	Woman's Home Com-panion . . . . .
Photo-Era . . . . .	<b>1.50 \$6.00</b>		Delineator . . . . .	<b>1.50 \$4.25</b>		Delineator . . . . .
	\$8.50		Photo-Era . . . . .	<b>1.50</b>		Everybody's Magazine . . . . .
Country Life in America . . . . .	\$4.00	Our	World's Work . . . . .	3.00	Price	World's Work . . . . .
Everybody's Magazine . . . . .	1.50	6.05	Delineator . . . . .	<b>1.50 \$5.30</b>		Delineator . . . . .
Photo-Era . . . . .	<b>1.50</b>		Photo-Era . . . . .	<b>1.50</b>		Everybody's Magazine . . . . .
Country Life in America . . . . .	\$4.00	Our	Review of Reviews . . . . .	\$3.00	Our	Review of Reviews . . . . .
World's Work . . . . .	3.00	Price	Woman's Home Com-panion . . . . .	1.50	Price	Woman's Home Com-panion . . . . .
Delineator . . . . .	1.00	5.80	Delineator . . . . .	<b>1.50 \$4.25</b>		Delineator . . . . .
Photo-Era . . . . .	<b>1.50</b>		Photo-Era . . . . .	<b>1.50</b>		Everybody's Magazine . . . . .
Country Life in America . . . . .	\$4.00	Our	Review of Reviews . . . . .	\$3.00	Our	Review of Reviews . . . . .
World's Work . . . . .	3.00	Price	Woman's Home Com-panion . . . . .	1.50	Price	Woman's Home Com-panion . . . . .
Delineator . . . . .	1.00	5.80	Delineator . . . . .	<b>1.50 \$4.25</b>		Delineator . . . . .
Photo-Era . . . . .	<b>1.50</b>		Photo-Era . . . . .	<b>1.50</b>		Everybody's Magazine . . . . .
Country Life in America . . . . .	\$4.00	Our	Review of Reviews . . . . .	\$3.00	Our	Review of Reviews . . . . .
World's Work . . . . .	3.00	Price	Woman's Home Com-panion . . . . .	1.50	Price	Woman's Home Com-panion . . . . .
Delineator . . . . .	1.00	5.80	Delineator . . . . .	<b>1.50 \$4.25</b>		Delineator . . . . .
Photo-Era . . . . .	<b>1.50</b>		Photo-Era . . . . .	<b>1.50</b>		Everybody's Magazine . . . . .
Country Life in America . . . . .	\$4.00	Our	Review of Reviews . . . . .	\$3.00	Our	Review of Reviews . . . . .
World's Work . . . . .	3.00	Price	Woman's Home Com-panion . . . . .	1.50	Price	Woman's Home Com-panion . . . . .
Delineator . . . . .	1.00	5.80	Delineator . . . . .	<b>1.50 \$4.25</b>		Delineator . . . . .
Photo-Era . . . . .	<b>1.50</b>		Photo-Era . . . . .	<b>1.50</b>		Everybody's Magazine . . . . .
Country Life in America . . . . .	\$4.00	Our	Review of Reviews . . . . .	\$3.00	Our	Review of Reviews . . . . .
World's Work . . . . .	3.00	Price	Woman's Home Com-panion . . . . .	1.50	Price	Woman's Home Com-panion . . . . .
Delineator . . . . .	1.00	5.80	Delineator . . . . .	<b>1.50 \$4.25</b>		Delineator . . . . .
Photo-Era . . . . .	<b>1.50</b>		Photo-Era . . . . .	<b>1.50</b>		Everybody's Magazine . . . . .
Country Life in America . . . . .	\$4.00	Our	Review of Reviews . . . . .	\$3.00	Our	Review of Reviews . . . . .
World's Work . . . . .	3.00	Price	Woman's Home Com-panion . . . . .	1.50	Price	Woman's Home Com-panion . . . . .
Delineator . . . . .	1.00	5.80	Delineator . . . . .	<b>1.50 \$4.25</b>		Delineator . . . . .
Photo-Era . . . . .	<b>1.50</b>		Photo-Era . . . . .	<b>1.50</b>		Everybody's Magazine . . . . .
Country Life in America . . . . .	\$4.00	Our	Review of Reviews . . . . .	\$3.00	Our	Review of Reviews . . . . .
World's Work . . . . .	3.00	Price	Woman's Home Com-panion . . . . .	1.50	Price	Woman's Home Com-panion . . . . .
Delineator . . . . .	1.00	5.80	Delineator . . . . .	<b>1.50 \$4.25</b>		Delineator . . . . .
Photo-Era . . . . .	<b>1.50</b>		Photo-Era . . . . .	<b>1.50</b>		Everybody's Magazine . . . . .
Country Life in America . . . . .	\$4.00	Our	Review of Reviews . . . . .	\$3.00	Our	Review of Reviews . . . . .
World's Work . . . . .	3.00	Price	Woman's Home Com-panion . . . . .	1.50	Price	Woman's Home Com-panion . . . . .
Delineator . . . . .	1.00	5.80	Delineator . . . . .	<b>1.50 \$4.25</b>		Delineator . . . . .
Photo-Era . . . . .	<b>1.50</b>		Photo-Era . . . . .	<b>1.50</b>		Everybody's Magazine . . . . .
Country Life in America . . . . .	\$4.00	Our	Review of Reviews . . . . .	\$3.00	Our	Review of Reviews . . . . .
World's Work . . . . .	3.00	Price	Woman's Home Com-panion . . . . .	1.50	Price	Woman's Home Com-panion . . . . .
Delineator . . . . .	1.00	5.80	Delineator . . . . .	<b>1.50 \$4.25</b>		Delineator . . . . .
Photo-Era . . . . .	<b>1.50</b>		Photo-Era . . . . .	<b>1.50</b>		Everybody's Magazine . . . . .
Country Life in America . . . . .	\$4.00	Our	Review of Reviews . . . . .	\$3.00	Our	Review of Reviews . . . . .
World's Work . . . . .	3.00	Price	Woman's Home Com-panion . . . . .	1.50	Price	Woman's Home Com-panion . . . . .
Delineator . . . . .	1.00	5.80	Delineator . . . . .	<b>1.50 \$4.25</b>		Delineator . . . . .
Photo-Era . . . . .	<b>1.50</b>		Photo-Era . . . . .			

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Good Housekeeping . . . . .	\$1.25	Our Price
American Magazine . . . . .	1.50	or Cosmopolitan \$2.50
Photo-Era . . . . .	<u>1.50</u>	
	\$4.25	

\$4.00 with Review of Reviews

American Magazine . . . . .	\$1.50	Our Price
Cosmopolitan . . . . .	1.00	Price
Photo-Era . . . . .	<u>1.50</u>	\$2.50
	\$4.00	

\$4.00 with Review of Reviews

Cosmopolitan . . . . .	\$1.00	Our Price
American Magazine . . . . .	1.50	Price
Good Housekeeping . . . . .	1.25	<u>\$3.10</u>
Photo-Era . . . . .	<u>1.50</u>	
	\$5.25	

Suburban Life . . . . .	\$3.00	Our Price
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American Magazine . . . . .	1.50	\$3.55
or Good Housekeeping		
Photo-Era . . . . .	<u>1.50</u>	
	\$6.00	

Suburban Life . . . . .	\$3.00	Our Price
or Current Literature		
American Magazine . . . . .	1.50	\$4.25
Good Housekeeping . . . . .	1.25	
Photo-Era . . . . .	<u>1.50</u>	
	\$7.25	

Suburban Life . . . . .	\$3.00	Our Price
Current Literature . . . . .	3.00	Price
American Magazine . . . . .	1.50	<u>\$5.80</u>
Good Housekeeping . . . . .	1.25	
Photo-Era . . . . .	<u>1.50</u>	
	\$10.25	

Success Magazine . . . . .	\$1.00	Our Price
Designer . . . . .	.75	Price
Photo-Era . . . . .	<u>1.50</u>	\$2.30
	\$3.25	

Success Magazine . . . . .	\$1.00	Our Price
American Magazine . . . . .	1.50	Price
or Cosmopolitan		
or Pictorial Review		
Photo-Era . . . . .	<u>1.50</u>	
	\$4.00	

\$4.00 with Review of Reviews

Travel Magazine . . . . .	\$1.50	Our Price
Technical World . . . . .	1.50	Price
Designer . . . . .	.75	<u>\$3.20</u>
Photo-Era . . . . .	<u>1.50</u>	
	\$5.25	

Travel Magazine . . . . .	\$1.50	Our Price
Field and Stream . . . . .	1.50	Price
Photo-Era . . . . .	<u>1.50</u>	\$3.10
	\$4.50	

Travel Magazine . . . . .	\$1.50	Our Price
Outing . . . . .	3.00	Price
or Forest and Stream (weekly)		
Photo-Era . . . . .	<u>1.50</u>	
	\$6.00	

Travel Magazine . . . . .	\$1.50	Our Price
Pearson's Magazine . . . . .	1.50	Price
Photo-Era . . . . .	<u>1.50</u>	\$2.60
	\$4.50	

Success Magazine . . . . .	\$1.00	Our Price
Independent (weekly) . . . . .	3.00	Price
Photo-Era . . . . .	<u>1.50</u>	\$3.25
	\$5.50	

Recreation . . . . .	\$3.00	Our Price
Burr McIntosh Monthly . . . . .	3.00	Price
Photo-Era . . . . .	<u>1.50</u>	\$4.95
	\$7.50	

Recreation . . . . .	\$3.00	Our Price
Field and Stream . . . . .	1.50	Price
Photo-Era . . . . .	<u>1.50</u>	\$3.95
	\$6.00	

Recreation . . . . .	\$3.00	Our Price
Travel Magazine . . . . .	1.50	Price
Photo-Era . . . . .	<u>1.50</u>	\$3.95
	\$6.00	

Outing . . . . .	\$3.00	Our Price
Motor Boat (semi-monthly) . . . . .	2.00	Price
Photo-Era . . . . .	<u>1.50</u>	\$4.30
	\$6.50	

The Musician . . . . .	\$1.50	Our Price
The Circle Magazine . . . . .	1.50	Price
Photo-Era . . . . .	<u>1.50</u>	\$2.95
	\$4.50	

Woman's Home Companion . . . . .	\$1.50	Our Price
McClure's Magazine . . . . .	1.50	Price
Review of Reviews . . . . .	3.00	
Photo-Era . . . . .	<u>1.50</u>	
	\$4.50	

\$4.50 with Review of Reviews

Woman's Home Companion . . . . .	\$1.50	Our Price
or McClure's Magazine		
or Sunset Magazine		
Review of Reviews . . . . .	3.00	
Photo-Era . . . . .	<u>1.50</u>	
	\$6.00	

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**WILFRED A. FRENCH, Publisher**

383 BOYLSTON STREET

BOSTON, U. S. A.

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Many of these prices must be advanced February 1

# PHOTOGRAPHIC MAGAZINE-CLUBS

Regular  
Price  
1 year

	Our Price 1 year	With Photo- Era
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1.50 American Photography . . . . .	1.35	2.00
1.75 Bulletin of Photography (Weekly) . . . . .	1.65	2.40
2.75 Bulletin of Photography and The Camera . . . . .	2.40	3.05
1.00 The Camera . . . . .	1.00	1.70
1.00 Camera Craft . . . . .	.90	1.55
6.50 Camera Work . . . . .	6.25	6.95
2.50 Photo-Miniature . . . . .	2.50	3.05
1.50 Photographic Times . . . . .	1.50	2.00
1.00 Professional and Amateur Photographer . . . . .	1.00	1.55
2.00 St. Louis and Canadian Photographer . . . . .	1.75	2.05
3.00 Wilson's Photographic Magazine . . . . .	3.00	3.90
3.00 Wilson's Photographic Magazine (New) . . . . .	3.00	3.55

Camera Craft . . . . .	<b>\$1.00 Our Price</b>	Camera Craft . . . . .	\$1.00 Our Price
The Camera . . . . .	1.00 Price	Am. Photography . . . . .	1.50 Price
<b>Photo-Era</b> . . . . .	<b>1.50 \$2.20</b>	or Photo. Times . . . . .	<b>\$2.45</b>

Am. Photography . . . . .	<b>\$1.50 Our Price</b>	Camera Craft . . . . .	\$1.00 Our Price
Photo. Times . . . . .	1.50 Price	Am. Photography . . . . .	1.50 Price
<b>Photo-Era</b> . . . . .	<b>1.50 \$2.85</b>	or Photo. Times . . . . .	<b>\$3.10</b>

Bulletin . . . . .	<b>\$1.75 Our Price</b>	Camera Craft . . . . .	\$1.00 Our Price
St. Louis and Canadian . . . . .	2.00 Price	Am. Photography . . . . .	1.50 Price
<b>Photo-Era</b> . . . . .	<b>1.50 \$3.40</b>	or Photo. Times . . . . .	<b>\$3.50</b>

Bulletin . . . . .	<b>\$1.75 Our Price</b>	Camera Craft . . . . .	\$1.00 Our Price
Photo-Miniature . . . . .	85.25	Am. Photography . . . . .	1.50 Price
<b>Photo-Era</b> . . . . .	<b>1.50 \$3.55</b>	or Prof. and Am. . . . .	<b>\$2.90</b>

Photo-Miniature . . . . .	<b>\$2.50 Our Price</b>	Photo-Era . . . . .	<b>1.50</b>
Camera Craft . . . . .	1.00 Price		
<b>Photo-Era</b> . . . . .	<b>1.50 \$3.55</b>		

Photo-Miniature . . . . .	<b>\$2.50 Our Price</b>	Photo-Era . . . . .	<b>1.50</b>
The Camera . . . . .	1.00 Price		
<b>Photo-Era</b> . . . . .	<b>1.50 \$3.70</b>		

Wilson's . . . . .	<b>\$3.00 Our Price</b>	Photo-Miniature . . . . .	<b>\$2.50 Our Price</b>
St. Louis and Canadian . . . . .	2.00 Price	Am. Photography . . . . .	1.50 Price
<b>Photo-Era</b> . . . . .	<b>1.50 \$4.55</b>	or Photo. Times . . . . .	<b>\$3.95</b>

American Photography . . . . .	<b>\$1.50 Our Price</b>	Photo-Era . . . . .	<b>1.50</b>
The Camera . . . . .	1.00 Price		
Camera Craft . . . . .	1.00	<b>\$3.10</b>	

\$5.00

Bulletin of Photography . . . . .	<b>\$1.75 Our Price</b>	Photo-Era . . . . .	<b>1.50 \$4.90</b>
Wilson's Photographic Magazine (new) . . . . .	3.00 Price		

\$6.25

\$5.25 if Wilson's is a renewal

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Camera Craft . . . . .	\$1.00 Our Price
American Photography . . . . .	1.50 Price
<b>Photo-Era</b> . . . . .	<b>1.50 \$2.45</b>

\$4.00

## Coast to Coast Group

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St. Louis and Canadian Photographer . . . . .	2.00 Price
The Camera . . . . .	1.00
Photographic Times . . . . .	1.50
<b>Photo-Era</b> . . . . .	<b>1.50 \$7.85</b>

\$7.00

**WILFRED A. FRENCH, Publisher**

383 BOYLSTON STREET

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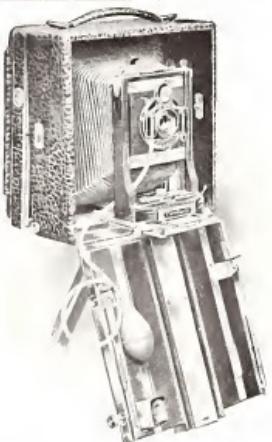
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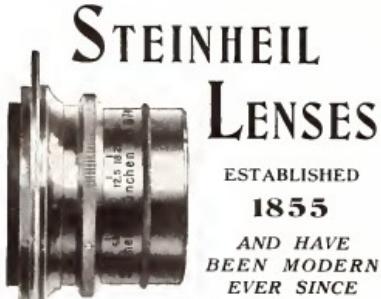
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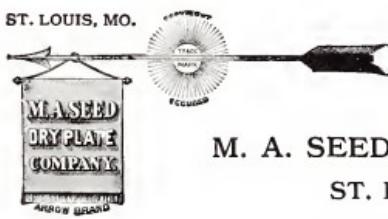
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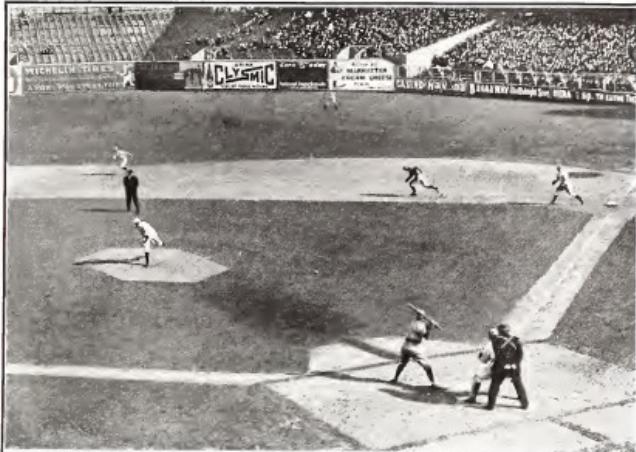
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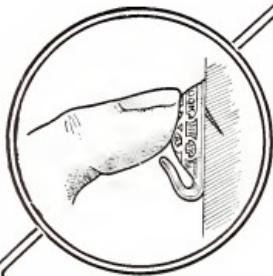
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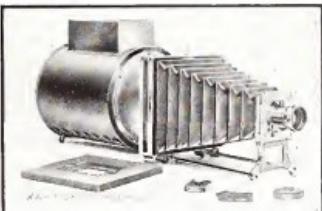
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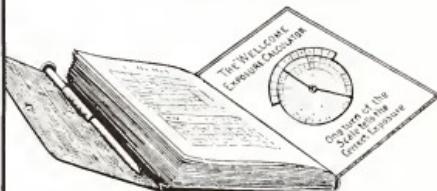




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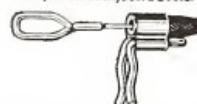
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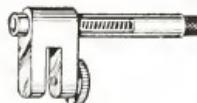
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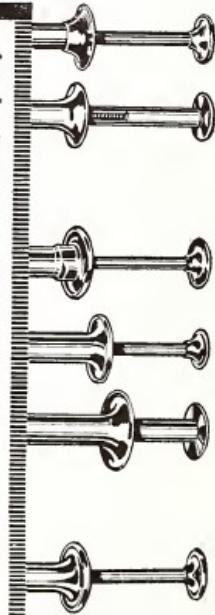
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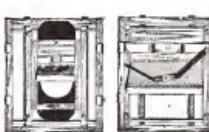
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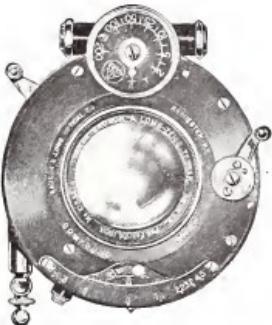


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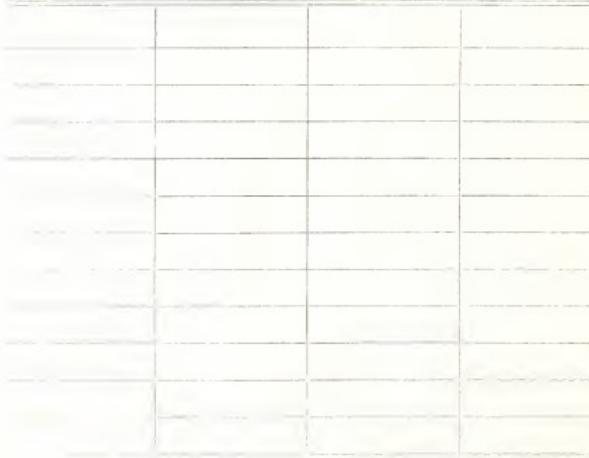
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